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# One-Third of a Nation

## A New Look at Housing Affordability in America

Michael E. Stone

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# Introduction

Half a century ago, President Franklin D. Roosevelt recognized that we were "one-third of a nation ill-housed. . . ." If President Bush were to be so candid, he would have to acknowledge that we are now one-third of a nation "shelter poor." *Nearly 27 million households in the United States—containing 78 million people, or 32 percent of the population—face so great a squeeze between inadequate incomes and high housing costs that, after paying for their housing, they are unable to meet their non-shelter needs at even a minimum level of adequacy.*[1]

**We are now one-third of a nation "shelter poor."**

■ The "shelter poverty" measure used in this report differs from the conventional identification of people with housing affordability problems based on whether they pay more than a certain fixed percentage of income for housing—25 percent or 30 percent. It is instead a sliding scale of affordability, which varies with income and household size and type.

■ In the aggregate, the shelter poverty measure does not reveal a more extensive housing affordability problem than the conventional measures. It does, however, suggest a rather different distribution of the problem. This measure demonstrates that there are many *low income* households and *large* (three persons or more) households who pay less than 25 percent of their incomes but are nonetheless shelter poor, because they still do not have enough left over after paying for housing to be able to obtain minimum levels of non-shelter necessities. By the same token, it also indicates that high income households and many small households of middle income *can* afford to pay more than 25 or 30 percent of income for housing (and do), yet are still able to consume quite adequate levels of non-shelter necessities and thus are *not* shelter poor. The conventional percentage-of-income measures thus *understate* the affordability problems of families with children and other larger households in comparison with households of one and two persons, as well as *overstating* the affordability burdens of higher income households.

■ The number of shelter poor households in the United States increased from 18.7 million in 1970 to 26.5 million by 1987—a 42 percent increase. Two-thirds of the rise in shelter poverty has been among the 36 percent of households who are renters.

■ During the period from 1970 to 1987 the proportion of the population living in shelter poverty rose from 31 percent to a peak of 36 percent in 1983, reflecting the impact of the double recession of the early 1980s, before declining to 34 percent in 1985 and 32 percent in 1987. The aggregate incidence of shelter poverty has generally followed the business cycle. However, underlying this business cycle variation is a *persistent* rate of shelter poverty that is close to 30 percent.

■ There has been a striking divergence between trends in shelter poverty for small (one- and two-person) households—for whom the rate of shelter poverty *fell* from 32 percent in 1970 to 26 percent in 1987—and larger households (containing three or more people) for whom shelter poverty *rose* from 29 percent to 34 percent during the same period. The growth in one- and two-person households over this period has, in effect, masked what has been a growing problem for families and other larger households.

***Over 42 percent of all renters. . .were shelter poor in 1987.***

■ Over 42 percent of all *renters* (13.9 million households) were shelter poor in 1987. Most have incomes of less than $20,000. About a third are married-couple families with low-wage jobs. Approximately one-third are single-parent families, most employed but many on public assistance. The balance are elderly and single-person households with incomes below $10,000: one-sixth of all shelter-poor renters are elderly, overwhelmingly women living alone on meager Social Security or SSI incomes; the other sixth are primarily non-elderly single men and women with barriers to stable employment.

■ Nearly 22 percent of all *homeowners* (12.7 million households) were shelter poor in 1987. More than one-third of the shelter poor owners are elderly singles and couples with incomes under $10,000. About one quarter are non-elderly, female-headed homeowner households; most of these women are employed but have incomes of under $20,000. The rest are non-elderly married-couple families with incomes of $10,000 to $35,000: some are middle-aged couples, disproportionately black, who bought their homes many years ago and have incomes of less than $20,000; many of these shelter poor, married-couple homeowner households, though, are young families, with incomes of about $20,000-$35,000, who have taken on substantial mortgage burdens to achieve homeownership.

■ Racially, the majority of shelter poor households are white, but shelter poverty is disproportionately borne by African-Americans and Hispanics. While 30 percent of all households are shelter poor, 50 percent of black households (5 million) and 50 percent of Hispanic households (2.5 million) are shelter poor. Black households are 11 percent of all households in the United States, but nearly 19 percent of all shelter poor households. Similarly, Hispanics are a little under six percent of all households, but over nine percent of shelter poor households.

■ In 1987 the average shelter poor household faced a gap of nearly $290 a month between what they were paying and what they could afford for housing. The aggregate national affordability deficit in that year was $92 billion. This aggregate gap amounts to only a little more than two percent of the $4.5 trillion Gross National Product, but *over the past decade the affordability gap has grown at a 20 percent faster rate than GNP.*

■ The shelter poverty measure actually shows far less *growth* in the incidence of affordability problems from 1970-87 than does the traditional 25 percent-of-income measure. The chief reason for this is that the conventional measure understated (by 40 percent) the incidence of affordability problems in 1970, at the beginning of the period. Thus policy prescriptions which assume, for example, that the housing affordability problem stems primarily from demographic changes in the 1970s which had begun to reverse themselves by the late 1980s are liable to be misguided. The affordability problem has much deeper roots than the conventional measures suggest.

■ Shelter poverty is, in part, a problem of worsening income inequality and declining real incomes among those at the bottom of the distribution. But it is also a problem of escalating housing costs generated by weaknesses in the mechanisms of housing ownership, finance, and production, as well as by flawed and inadequate public policies. A solution will require bold initiatives that address both sides of the affordability equation.

***Shelter poverty is, in part, a problem of worsening income inequality and declining real incomes among those at the bottom of the distribution.***

## A New Affordability Standard

This report examines the housing affordability problem in the United States utilizing a measure of affordability that is more realistic than both the traditional 25-percent-of-income and the more recent 30-percent-of-income standards. Instead of a constant percentage of income, the alternative shelter poverty measure is a sliding scale, with the maximum affordable percentage varying with income and household size and type.

***The alternative shelter poverty measure is a sliding scale, with the maximum affordable percentage varying with income and household size and type.***

The sliding scale arises from the recognition that housing costs generally make the first claim on a household's disposable income, with non-housing expenditures having to adjust to what is left. That is, when we say that a household is paying more than they can afford for housing what we mean is that after paying for their housing they are unable to meet their non-housing needs at some specified minimum level of adequacy. Since small households on average can meet their non-shelter needs for less than larger households, they can reasonably afford a higher percentage of income for housing than larger households of the same income. Since low and higher income households of the same size and type would, on average, need comparable resources to meet their non-shelter needs at a minimum level, lower income households reasonably can afford a smaller percentage of their income for housing than similar higher income households. On this basis, it turns out that some households can afford less than the traditional 25 percent of income—indeed, some can afford nothing for housing—while others can afford more than 25 percent and even more than 30 percent without hardship.

The approach has been operationalized by utilizing the non-shelter components (other than taxes) of the Bureau of Labor Statistics (BLS) Lower Budgets as the standard for non-shelter necessities (appropriately updated and scaled for different household types), and by taking into account the effects of personal taxes as a function of income and household type and size. Households paying more than they can afford on this scale of affordability are called "shelter poor." A fuller explanation of the logic and methodology of the shelter poverty concept of affordability, as well as actual dollar and percent-of-income affordability levels under this measure can be found in Appendix A.

For example, on the shelter poverty standard a married-couple family of four with a gross income of $20,000 on average could have afforded only $300 a month (18 percent of their income) for shelter, including utilities, in 1987 if they were to be able to satisfy their non-housing needs at the minimum of adequacy. Indeed, if their income were under $15,000 they could not have afforded *anything* for shelter and still met their non-shelter necessities at the minimum level. However, if their income were $23,000 or more they could afford to spend a maximum

of 25 percent of their income on housing, and if $26,000 or more 30 percent of their income.

Elderly couples receiving Social Security benefits of $750 a month, on the other hand, could afford $170 a month (23 percent of their income), but only if insurance covers all of their medical costs. An elderly single woman living on $350 a month from SSI could afford just $32 a month for housing, nine percent of her meager income. An employed single parent with two children and an income of $15,000 would have been able to afford only $215 a month (17 percent of her income) for housing in 1987; but if she were unemployed and on public assistance she would have been able to afford nothing for housing, even in states with the highest AFDC benefit levels and even with Food Stamps and Medicaid. No *flat* percentage standard can adequately represent these kinds of differences in the affordability situations of households differing by size and type and by level and source of income.

***An employed single parent with two children and an income of $15,000 would have been able to afford only $215 a month. . .for housing in 1987.***

The following sections examine the scope of the housing affordability problem in the United States, comparing the extent and distribution of households shelter poor and paying 25 percent or more of their incomes for shelter. For 1985 and 1987 the 30 percent of income standard has also been applied. The analysis has been based upon data from the 1970 Census of Housing and the 1975-87 American Housing Surveys (called the Annual Housing Survey before it became biennial). Appendix B discusses the assumptions and methods used in the analysis.

## Shelter Poverty In 1987

### Shelter Poverty and Conventional Affordability

In 1987 there were 27 million households shelter poor, but 36 million households paying 25 percent or more of their incomes for housing and 28 million paying 30 percent or more (Tables 1 and 3). That is, the shelter poverty approach does not overstate the extent of the housing affordability problem in comparison with the conventional approach, but it does, as we shall see, suggest a significantly different distribution of the problem.

***In 1987 there were 27 million households shelter poor.***

These 27 million shelter poor households contain 78 million persons, compared to 91 million people in households paying 25 percent or more of income for housing and 68 million people in households paying 30 percent or more.[2] Thus, among persons in households, 32 percent are shelter poor, 38 percent pay one-quarter or more of their incomes for housing, and 28 percent pay 30 percent or more for housing. Note that even though 1 million more *households* were paying 30 percent or more of income than were shelter poor, there were 10 million more *people* in shelter poor households because of the larger size of the typical shelter poor household.

**TABLE 1**

**Number of Renter Households (millions)**
**U.S. 1987**

| | INCOME | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Household Size | Less than $5,000 | $5,000 to $9,999 | $10,000 to $14,999 | $15,000 to $19,999 | $20,000 to $29,999 | $30,000 to $39,999 | $40,000 or More | Total Under $10,000 | Total Under $15,000 | Total All Incomes | Median Income |
| **Shelter Poor** | | | | | | | | | | | |
| 1-Person HH | 1.95 | 1.45 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 3.41 | 3.44 | 3.45 | $ 4,359 |
| 2-Person HH | 0.97 | 1.28 | 1.08 | 0.22 | 0.06 | 0.00 | 0.00 | 2.25 | 3.33 | 3.61 | 8,274 |
| 3-Person HH | 0.59 | 0.72 | 0.66 | 0.47 | 0.13 | 0.01 | 0.00 | 1.31 | 1.97 | 2.58 | 9,850 |
| 4-Person HH | 0.36 | 0.51 | 0.49 | 0.47 | 0.38 | 0.02 | 0.00 | 0.87 | 1.37 | 2.24 | 12,463 |
| 5-Person HH | 0.13 | 0.23 | 0.25 | 0.23 | 0.33 | 0.02 | 0.00 | 0.37 | 0.62 | 1.20 | 14,599 |
| 6+Person HH | 0.09 | 0.17 | 0.16 | 0.15 | 0.17 | 0.04 | 0.00 | 0.26 | 0.42 | 0.78 | 14,037 |
| TOTAL | 4.10 | 4.37 | 2.69 | 1.53 | 1.08 | 0.09 | 0.00 | 8.47 | 11.16 | 13.86 | 8,235 |
| **Paying 25 Percent or More** | | | | | | | | | | | |
| 1-Person HH | 1.85 | 2.23 | 1.24 | 0.71 | 0.70 | 0.13 | 0.07 | 4.08 | 5.32 | 6.93 | $ 8,625 |
| 2-Person HH | 0.90 | 1.17 | 1.20 | 0.83 | 0.84 | 0.17 | 0.07 | 2.07 | 3.27 | 5.18 | 12,162 |
| 3-Person HH | 0.55 | 0.66 | 0.59 | 0.49 | 0.50 | 0.11 | 0.04 | 1.21 | 1.80 | 2.95 | 12,229 |
| 4-Person HH | 0.33 | 0.47 | 0.44 | 0.35 | 0.40 | 0.11 | 0.04 | 0.80 | 1.24 | 2.14 | 13,030 |
| 5-Person HH | 0.12 | 0.22 | 0.23 | 0.17 | 0.19 | 0.04 | 0.02 | 0.34 | 0.56 | 0.98 | 13,416 |
| 6+Person HH | 0.08 | 0.16 | 0.14 | 0.11 | 0.10 | 0.02 | 0.01 | 0.24 | 0.38 | 0.62 | 12,462 |
| TOTAL | 3.85 | 4.89 | 3.84 | 2.66 | 2.73 | 0.59 | 0.23 | 8.74 | 12.58 | 18.80 | 10,861 |
| **Paying 30 Percent or More** | | | | | | | | | | | |
| 1-Person HH | 1.79 | 2.02 | 0.97 | 0.42 | 0.36 | 0.06 | 0.03 | 3.81 | 4.78 | 5.66 | $ 7,573 |
| 2-Person HH | 0.87 | 1.09 | 1.01 | 0.57 | 0.48 | 0.08 | 0.03 | 1.95 | 2.96 | 4.12 | 10,531 |
| 3-Person HH | 0.53 | 0.61 | 0.50 | 0.35 | 0.29 | 0.06 | 0.02 | 1.14 | 1.64 | 2.35 | 10,347 |
| 4-Person HH | 0.32 | 0.43 | 0.38 | 0.25 | 0.25 | 0.06 | 0.01 | 0.75 | 1.13 | 1.70 | 11,311 |
| 5-Person HH | 0.12 | 0.20 | 0.20 | 0.12 | 0.12 | 0.02 | 0.01 | 0.31 | 0.51 | 0.78 | 11,907 |
| 6+Person HH | 0.08 | 0.15 | 0.12 | 0.08 | 0.06 | 0.01 | 0.00 | 0.23 | 0.35 | 0.50 | 11,107 |
| TOTAL | 3.70 | 4.49 | 3.18 | 1.79 | 1.55 | 0.29 | 0.09 | 8.19 | 11.38 | 15.11 | 9,290 |

## TABLE 2

### Percent of Renter Households
### U.S. 1987

| Household Size | Less than $5,000 | $5,000 to $9,999 | $10,000 to $14,999 | $15,000 to $19,999 | $20,000 to $29,999 | $30,000 to $39,999 | $40,000 or more | Total Under $10,000 | Total Under $15,000 | Total All Incomes |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | INCOME | | | | | | |
| **Shelter Poor** | | | | | | | | | | |
| 1-Person HH | 91.6% | 53.8% | 2.0% | 0.0% | 0.2% | 0.0% | 0.0% | 70.5% | 52.3% | 29.6% |
| 2-Person HH | 90.8 | 92.7 | 74.2 | 17.2 | 3.0 | 0.4 | 0.0 | 91.9 | 85.3 | 39.4 |
| 3-Person HH | 91.6 | 93.3 | 93.5 | 63.4 | 12.4 | 1.3 | 0.0 | 92.5 | 92.8 | 49.9 |
| 4-Person HH | 88.2 | 90.5 | 91.2 | 91.6 | 47.1 | 3.6 | 0.2 | 89.6 | 90.1 | 57.1 |
| 5-Person HH | 87.0 | 90.1 | 90.9 | 92.1 | 82.2 | 9.7 | 0.4 | 89.0 | 89.7 | 67.2 |
| 6+Person HH | 88.9 | 91.7 | 92.2 | 93.4 | 93.7 | 34.5 | 1.5 | 90.7 | 91.3 | 75.4 |
| TOTAL | 90.9 | 74.5 | 54.6 | 35.1 | 16.6 | 2.7 | 0.1 | 81.7 | 73.0 | 42.3 |
| **Paying 25 Percent or More** | | | | | | | | | | |
| 1-Person HH | 86.9% | 82.5% | 70.7% | 50.3% | 32.4% | 16.5% | 9.7% | 84.4% | 80.8% | 59.5% |
| 2-Person HH | 84.5 | 85.0 | 82.0 | 64.7 | 44.4 | 17.4 | 6.1 | 84.7 | 83.7 | 56.5 |
| 3-Person HH | 85.6 | 85.4 | 83.6 | 67.4 | 46.9 | 17.9 | 6.5 | 85.5 | 84.9 | 57.1 |
| 4-Person HH | 81.2 | 82.4 | 81.7 | 68.1 | 49.8 | 20.1 | 6.7 | 81.9 | 81.8 | 54.6 |
| 5-Person HH | 79.1 | 82.7 | 81.6 | 68.3 | 47.7 | 21.8 | 6.2 | 81.4 | 81.5 | 55.0 |
| 6+Person HH | 81.7 | 84.0 | 80.8 | 67.8 | 53.4 | 20.9 | 7.5 | 83.2 | 82.3 | 59.6 |
| TOTAL | 85.2 | 83.5 | 78.1 | 61.2 | 41.9 | 18.1 | 7.1 | 84.3 | 82.3 | 57.5 |
| **Paying 30 Percent or More** | | | | | | | | | | |
| 1-Person HH | 83.8% | 75.0% | 55.3% | 29.9% | 16.7% | 7.8% | 4.0% | 78.9% | 72.6% | 48.6% |
| 2-Person HH | 81.1 | 78.7 | 69.1 | 44.4 | 25.1 | 8.4 | 2.4 | 79.7 | 75.8 | 44.9 |
| 3-Person HH | 82.5 | 79.2 | 71.1 | 47.0 | 27.3 | 9.0 | 2.6 | 80.7 | 77.5 | 45.6 |
| 4-Person HH | 77.5 | 76.2 | 70.4 | 49.1 | 30.7 | 10.4 | 2.7 | 76.8 | 74.5 | 43.4 |
| 5-Person HH | 74.9 | 76.4 | 71.0 | 48.7 | 29.5 | 10.8 | 2.3 | 75.8 | 73.9 | 43.5 |
| 6+Person HH | 77.8 | 78.0 | 70.7 | 50.7 | 32.6 | 10.9 | 3.3 | 77.9 | 75.2 | 48.6 |
| TOTAL | 82.0 | 76.7 | 64.8 | 41.1 | 23.8 | 8.9 | 2.8 | 79.0 | 74.4 | 46.2 |

## Table 3

## Number of Homeowner Households (millions)
## U.S. 1987

| Household Size | INCOME Less than $5,000 | $5,000 to $9,999 | $10,000 to $14,999 | $15,000 to $19,999 | $20,000 to $29,999 | $30,000 to $39,999 | $40,000 or more | Total Under $10,000 | Total Under $15,000 | Total All Incomes | Median Income |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Shelter Poor** | | | | | | | | | | | |
| 1-Person HH | 1.42 | 1.01 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 2.44 | 2.47 | 2.47 | $ 4,282 |
| 2-Person HH | 0.66 | 1.68 | 0.92 | 0.23 | 0.13 | 0.00 | 0.00 | 2.34 | 3.26 | 3.62 | 8,416 |
| 3-Person HH | 0.21 | 0.40 | 0.53 | 0.38 | 0.32 | 0.06 | 0.00 | 0.60 | 1.14 | 1.90 | 13,261 |
| 4-Person HH | 0.13 | 0.23 | 0.37 | 0.56 | 0.70 | 0.18 | 0.02 | 0.36 | 0.74 | 2.21 | 18,247 |
| 5-Person HH | 0.07 | 0.13 | 0.20 | 0.28 | 0.58 | 0.15 | 0.03 | 0.20 | 0.39 | 1.43 | 20,804 |
| 6+Person HH | 0.03 | 0.10 | 0.15 | 0.18 | 0.38 | 0.17 | 0.03 | 0.12 | 0.27 | 1.04 | 21,693 |
| TOTAL | 2.52 | 3.54 | 2.21 | 1.63 | 2.12 | 0.57 | 0.09 | 6.06 | 8.27 | 12.68 | 10,620 |
| **Paying 25 Percent or More** | | | | | | | | | | | |
| 1-Person HH | 1.34 | 1.83 | 0.53 | 0.14 | 0.18 | 0.07 | 0.25 | 3.17 | 3.70 | 4.34 | $ 7,265 |
| 2-Person HH | 0.59 | 1.18 | 1.04 | 0.68 | 0.95 | 0.45 | 0.67 | 1.77 | 2.81 | 5.56 | 14,847 |
| 3-Person HH | 0.17 | 0.22 | 0.30 | 0.38 | 0.78 | 0.51 | 0.56 | 0.39 | 0.69 | 2.93 | 24,976 |
| 4-Person HH | 0.10 | 0.09 | 0.16 | 0.30 | 0.76 | 0.62 | 0.67 | 0.19 | 0.35 | 2.71 | 29,148 |
| 5-Person HH | 0.05 | 0.06 | 0.10 | 0.14 | 0.37 | 0.26 | 0.30 | 0.12 | 0.22 | 1.30 | 27,772 |
| 6+Person HH | 0.02 | 0.06 | 0.09 | 0.09 | 0.18 | 0.14 | 0.14 | 0.08 | 0.17 | 0.73 | 25,483 |
| TOTAL | 2.28 | 3.45 | 2.22 | 1.74 | 3.23 | 2.06 | 2.59 | 5.73 | 7.95 | 17.57 | 17,397 |
| **Paying 30 Percent or More** | | | | | | | | | | | |
| 1-Person HH | 1.28 | 1.54 | 0.37 | 0.07 | 0.06 | 0.01 | 0.12 | 2.82 | 3.19 | 3.45 | $ 6,455 |
| 2-Person HH | 0.56 | 0.97 | 0.79 | 0.49 | 0.61 | 0.24 | 0.32 | 1.53 | 2.32 | 3.98 | 12,911 |
| 3-Person HH | 0.15 | 0.17 | 0.23 | 0.30 | 0.55 | 0.32 | 0.26 | 0.32 | 0.55 | 1.98 | 22,581 |
| 4-Person HH | 0.09 | 0.05 | 0.12 | 0.24 | 0.55 | 0.40 | 0.31 | 0.13 | 0.25 | 1.75 | 27,069 |
| 5-Person HH | 0.05 | 0.04 | 0.08 | 0.11 | 0.27 | 0.17 | 0.14 | 0.09 | 0.17 | 0.87 | 25,506 |
| 6+Person HH | 0.02 | 0.05 | 0.07 | 0.08 | 0.13 | 0.09 | 0.06 | 0.07 | 0.14 | 0.51 | 22,818 |
| TOTAL | 2.14 | 2.82 | 1.66 | 1.28 | 2.18 | 1.23 | 1.23 | 4.96 | 6.62 | 12.54 | 13,941 |

## Table 4

## Percent of Homeowner Households
## U.S. 1987

| Household Size | Less than $5,000 | $5,000 to $9,999 | $10,000 to $14,999 | $15,000 to $19,999 | $20,000 to $29,999 | $30,000 to $39,999 | $40,000 or More | Total Under $10,000 | Total Under $15,000 | Total All Incomes |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | INCOME | | | | | | |
| | | | | **Shelter Poor** | | | | | | |
| 1-Person HH | 99.3% | 38.0% | 2.3% | 0.0% | 0.0% | 0.0% | 0.0% | 59.5% | 44.0% | 24.0% |
| 2-Person HH | 100.0 | 98.6 | 40.4 | 10.1 | 3.2 | 0.0 | 0.0 | 99.0 | 70.3 | 18.2 |
| 3-Person HH | 100.0 | 100.0 | 87.8 | 43.4 | 15.6 | 3.1 | 0.1 | 100.0 | 93.9 | 17.5 |
| 4-Person HH | 100.0 | 100.0 | 100.0 | 89.4 | 42.0 | 9.3 | 0.5 | 100.0 | 100.0 | 21.5 |
| 5-Person HH | 100.0 | 100.0 | 100.0 | 100.0 | 76.0 | 19.9 | 1.3 | 100.0 | 100.0 | 32.1 |
| 6+Person HH | 100.0 | 100.0 | 100.0 | 100.0 | 95.5 | 40.1 | 2.9 | 100.0 | 100.0 | 45.2 |
| TOTAL | 99.6 | 68.0 | 42.1 | 31.5 | 19.6 | 6.4 | 0.4 | 78.3 | 64.3 | 21.8 |
| | | | | **Paying 25 Percent or More** | | | | | | |
| 1-Person HH | 93.4% | 69.0% | 34.8% | 14.7% | 10.3% | 7.5% | 24.0% | 77.6% | 66.0% | 42.1% |
| 2-Person HH | 89.6 | 68.9 | 45.9 | 30.1 | 22.7 | 15.6 | 11.2 | 74.7 | 60.6 | 27.9 |
| 3-Person HH | 83.4 | 56.3 | 49.2 | 44.1 | 37.8 | 26.1 | 11.7 | 65.6 | 57.3 | 26.9 |
| 4-Person HH | 77.0 | 39.3 | 42.9 | 48.0 | 45.6 | 32.4 | 12.6 | 53.2 | 48.0 | 26.4 |
| 5-Person HH | 79.9 | 50.5 | 51.2 | 51.3 | 48.5 | 34.2 | 13.5 | 60.7 | 56.0 | 29.1 |
| 6+Person HH | 75.4 | 63.0 | 58.8 | 52.2 | 45.3 | 33.1 | 13.8 | 65.8 | 62.0 | 31.7 |
| TOTAL | 90.2 | 66.1 | 43.3 | 33.7 | 29.7 | 23.1 | 12.7 | 74.0 | 61.8 | 30.2 |
| | | | | **Paying 30 Percent or More** | | | | | | |
| 1-Person HH | 89.1% | 57.9% | 24.5% | 7.1% | 3.7% | 1.0% | 11.8% | 68.8% | 56.8% | 33.5% |
| 2-Person HH | 83.9 | 57.1 | 34.7 | 21.7 | 14.6 | 8.2 | 5.4 | 64.6 | 49.9 | 19.9 |
| 3-Person HH | 75.2 | 41.9 | 38.0 | 33.9 | 26.8 | 16.3 | 5.5 | 53.3 | 45.6 | 18.2 |
| 4-Person HH | 66.0 | 20.2 | 31.1 | 37.5 | 32.7 | 20.9 | 5.9 | 37.1 | 34.1 | 17.1 |
| 5-Person HH | 70.4 | 35.0 | 41.0 | 40.6 | 35.8 | 21.9 | 6.4 | 47.3 | 44.1 | 19.5 |
| 6+Person HH | 63.8 | 51.0 | 49.6 | 42.0 | 33.5 | 21.9 | 6.4 | 53.9 | 51.6 | 22.2 |
| TOTAL | 84.6 | 54.1 | 32.5 | 24.7 | 20.1 | 13.8 | 6.0 | 64.1 | 51.5 | 21.6 |

Looking beyond these *aggregate* results from the different affordability standards, the shelter poverty measure shows the affordability problem to be much more concentrated among lower income and large households, and relatively less severe among middle income and small households than is indicated by either of the conventional measures.

***The affordability problem [is] concentrated among lower income and large households.***

For example, the median income of shelter poor homeowners is $10,600, while the median income of those paying 25 percent or more is $17,400, and the median income of homeowners paying 30 percent or more is nearly $14,000 (Table 3). Renters show a similar pattern but somewhat less disparity, with the $8,200 median income of shelter poor renters rather less than the $10,900 median of renters paying 25 percent or more of their incomes for housing and slightly lower than the $9,300 median income of those renters paying 30 percent or more (Table 1). What these differences mean is that *there are many low-income households who are shelter poor even though they are spending less than 25 percent of their incomes for housing, and there are many higher income households who are not shelter poor even though they are spending more than 25 percent or even more than 30 percent of their incomes.*

In addition, there are significant variations by household size, with shelter poverty relatively more serious among larger households and somewhat less pervasive among smaller households than the conventional standards suggest. Consider the following:

■ Among renters, the incidence of shelter poverty for one-person households is only 30 percent, but rises steeply with household size to 75 percent of six-or-more-person households; by contrast, the proportion paying 25 percent or more by household size varies narrowly between 55 percent and 60 percent, showing no correlation with household size; the proportion paying 30 percent or more ranges between 43 percent and 49 percent, again uncorrelated with household size; indeed, both the 25 percent and 30-percent-of-income standards suggest that one-person households match six-or-more-person households for the highest incidence of affordability problems among renters, in sharp contrast with the shelter-poverty figures which reveal one-person households to have the lowest incidence of affordability problems (Figure 1 and Table 2).

**Figure 1**
**Renters with Affordability Problem by Household Size**
**1987**

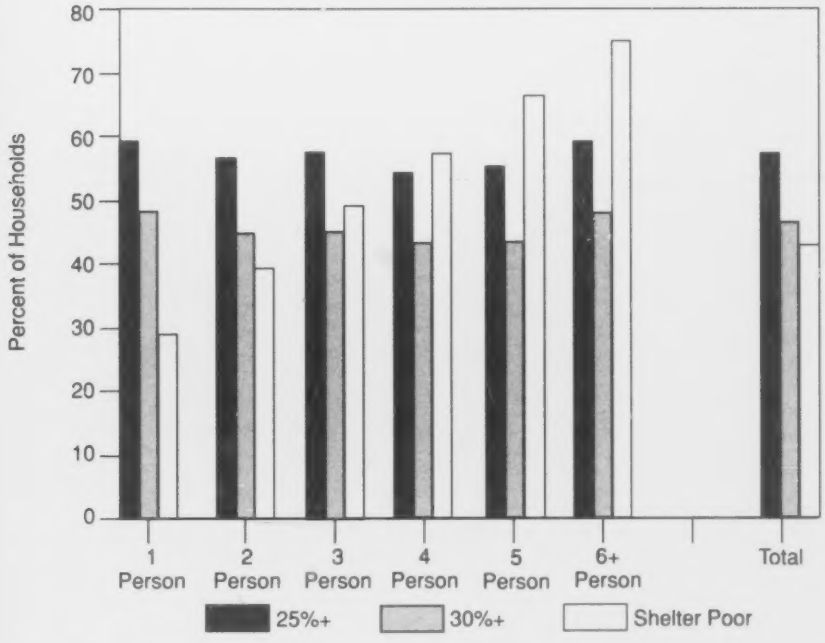



**Figure 2**
**Renters with Affordability Problem by Income**
**1987**

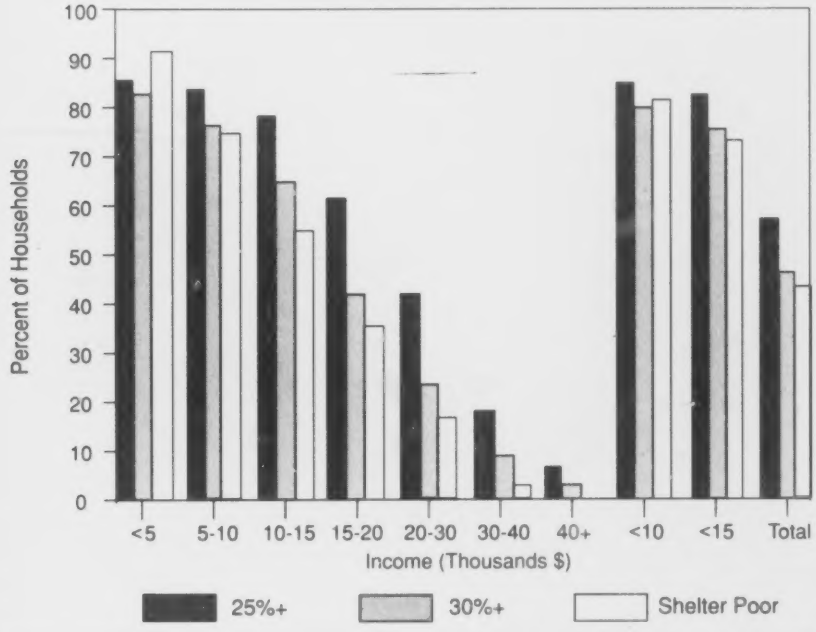


**Figure 3**
**Owners with Affordability Problem by Household Size**
**1987**

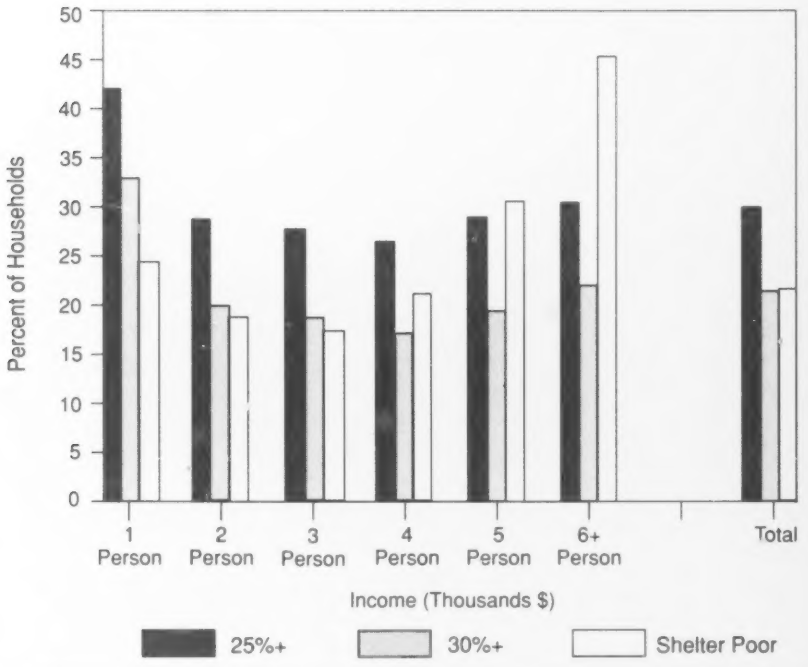
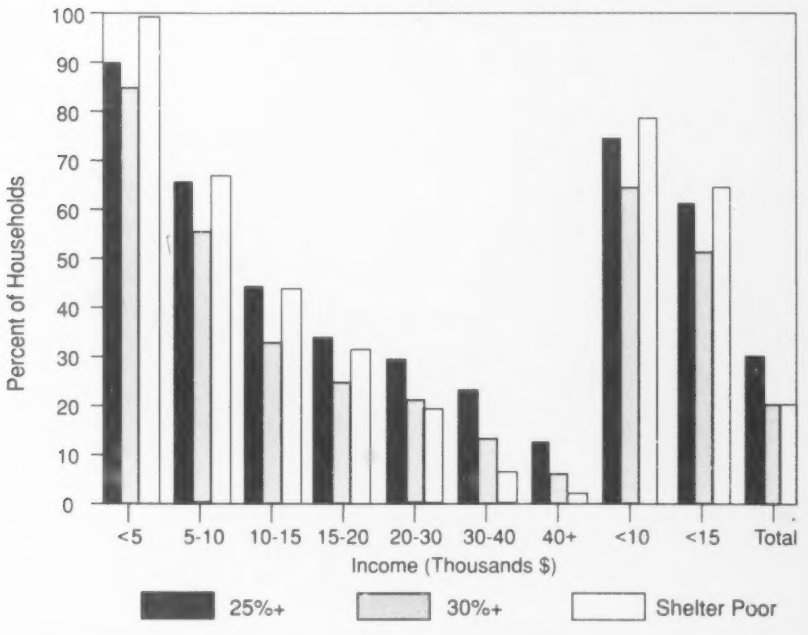



**Figure 4**
**Owners with Affordability Problem by Income**
**1987**



■ Note, too, that despite the *overall* pattern showing shelter poor households to be poorer than those with affordability problems under the percent-of-income standards, the median incomes of shelter poor renter households of four, five or six or more people *exceed* (with but one exception) the median incomes of households in these size classes paying 25 percent or more of income or 30 percent or more (Table 1). Because these larger households need relatively more income to pay for non-shelter necessities, shelter poverty reaches higher up their income distributions. That is, while the somewhat higher incomes of larger households *allow* more to be spent on non-shelter necessities, the amount that *must* be spent to achieve a minimum level of adequacy increases with household size at a faster rate.

■ Among homeowners, the difference by household size is also substantial. However, one-person households depart from the pattern of shelter poverty increasing with household size shown by renters because, unlike renters, homeowner households with one person are very much poorer (median income about $13,500, the majority elderly) than other homeowners (median income about $34,000). Nonetheless, the different affordability standards continue to tell different stories: 24 percent of one-person homeowners are shelter poor, while 42 percent are paying 25 percent or more and 34 percent are paying 30 percent or more (Figure 3 and Table 4).

■ Among larger homeowner households the incidence of shelter poverty rises from 18 percent of two- and three-person households to 45 percent of six-or-more-person homeowners; of homeowners paying 25 percent or more for housing, the proportion varies little by household size, ranging narrowly between 26 percent and 32 percent, while the incidence of those paying 30 percent or more varies between 17 percent and 22 percent, with no correlation by household size except that the incidence among homeowner households of six or more persons is at the top of these ranges (Figure 3 and Table 4).

Because the different affordability measures overlap considerably in their identification of extremely low-income (under $10,000) renter households with affordability problem (Tables 1 and 3), the differences between shelter poverty and the conventional standards are even more pronounced when the comparison is restricted to higher income households alone.

Thus, among renter households with incomes between $10,000 and $30,000, those with four persons or more have a shelter poverty incidence of 80 percent, compared with 64 percent paying 25 percent or more of their incomes for rent, and 48 percent paying 30 percent or more. Smaller households in the same income class, on the other hand, have a shelter-poverty incidence of only 21 percent, far less than the 57 percent who pay 25 percent or more of their incomes for rent and the 40 percent paying 30 percent or more. Among these lower-middle-

***Among renter households with incomes between $10,000 and $30,000, those with four persons or more have a shelter poverty incidence of 80 percent.***

income renters, then, those who are shelter poor differ strikingly from those with affordability problems on the standard percent-of-income measures, with the conventional approach grossly overstating the affordability problem among small households and substantially understating it for large households.

***Shelter poverty is serious among homeowner households of four persons or more even with incomes up to $30,000 and more.***

Shelter poor homeowners are somewhat more diverse than renters, comprising essentially two subgroups: low-income middle-aged and elderly households who tend be shelter poor even though many are paying less than 25 to 30 percent of their incomes; and middle-income younger households who are both shelter poor and generally paying more than 25 to 30 percent of their incomes.

As with renters, the affordability approaches differ little in their identification of very low-income homeowners with affordability problems, but differ considerably in their pictures at higher incomes. Shelter poverty is serious among homeowner households of four persons or more even with incomes up to $30,000 and more (shelter poverty rates ranging from 44 percent to 100 percent); but it is insignificant among one-person households over $10,000, two-person households over $20,000, and three-person households over $30,000 (all of whom have shelter poverty rates of ten percent or less). Thus the variability in rates of shelter poverty by household size tends to be much greater for income classes above $10,000. The percentage of income standards, by contrast, show very little household-size variation by income, except for lower rates among middle-income one- and two-person households (Figure 4 and Table 4).

Comparing renters and homeowners, the median income of shelter poor *one-person* renters is virtually identical with that of one-person shelter poor owners; and the same is true of two-person renters and owners. Among larger households, though, the median income of shelter poor homeowners is much greater than the median of shelter poor renters (Tables 1 and 3). Shelter poor one- and two-person homeowners are mostly elderly with relatively low housing costs, but very low incomes. Larger shelter poor homeowner households, by contrast, especially households of three persons or more, are predominantly young, recent homebuyers with housing costs higher, on average, than shelter poor renter households of the same size. Thus shelter poverty reaches higher up the income distribution of such homeowner households than it does for renters of the same size.

Summarizing the household size differences in an aggregate way underscores the point, already made in connection with the disaggregated data, that conventional affordability standards understate the comparative extent of the affordability problem faced by larger households. Specifically, in 1987 there were 2.94 persons per shelter poor household, 2.65 persons in the average household, 2.50 persons p

household paying in excess of 25 percent and 2.45 persons per household paying more than 30 percent of income for housing. The typical household paying more than they can afford by conventional standards is *smaller* than the average household, while the typical shelter poor household is *larger* than average.

**The Housing Affordability Gap 1987**

The gap between the amount a shelter poor household actually pays for housing and what they can afford is, on average, $288 a month or nearly $3,500 a year.[3] Of course, this figure in no way measures the physical adequacy of the homes that shelter poor families occupy or the quality of their residential environments: some are housed quite well but are financially squeezed; others are quite poorly housed despite their affordability problem, but would have a considerably larger affordability gap for decent housing in the private market.

***The gap between the amount a shelter poor household actually pays for housing and what they can afford is, on average, $288 a month or nearly $3,500 a year.***

By comparison, on the 25 percent-of-income standard, the average affordability gap is $208 a month, and on the 30 percent standard, $217. Among renters, the average shelter poverty affordability gap is $301 a month, compared with $203 on the 25 percent standard and $199 for those paying 30 percent or more. For shelter poor homeowners, the affordability gap averages $265 a month, compared with $215 and $239 respectively for the 25 percent and 30 percent standards.

Multiplying the average per household deficit by the total number of shelter poor households yields an aggregate national affordability gap of $92 billion in 1987.

The percent-of-income standards of affordability produce of course different measures of the aggregate gap. The aggregate national affordability gap for households paying 25 percent or more of their incomes for housing is about $91 billion, and for those paying 30 percent or more it is $72 billion. The $91 billion is nearly as great as the shelter poverty gap because, despite the lower average gap per household, there are considerably more households paying 25 percent or more than are shelter poor.

While an aggregate figure of $92 billion is quite staggering in terms of its economic and policy implications, it is worth noting that it is only two percent of the Gross National Product of the United States, less than nine percent of total federal budget outlays, less than a third of military spending and less than a third of social insurance (Social Security, etc.) outlays.

Nonetheless, the figure of $92 billion is 2.8 times the historically high figure of $33 billion in federal budget authority for housing in fiscal year 1981, and is 1.7 times the estimated $54 billion in revenue lost in fiscal 1989 through housing tax benefits (Congressional Budget Office, 1988: 4 and 42). In addition, this figure does not include the tangible

and intangible costs of homelessness and of physically and socially inadequate residential environments. Nor does it capture the frustration of young, middle-income renter households who may not be shelter poor but had expected to be able to become homeowners—except indirectly, as their continued presence in the private rental market has contributed to higher demand and hence higher prices.

***Multiplying the average per household deficit by the total number of shelter poor households yields an aggregate national affordability gap of $92 billion in 1987.***

## Shelter Poverty And Socio-economic Trends

### Overview

As we have seen, the shelter poverty standard yields a rather conservative figure for the aggregate extent of the housing affordability problem: in 1987 there were 26.5 million shelter poor *households*, nearly 10 million fewer than the 36.4 million paying 25 percent or more of their incomes (and even a million less than the 27.7 million paying 30 percent or more); 78 million *people* lived in these shelter poor households, versus 91 million in households paying 25 percent or more (and 67 million paying 30 percent or more).

***Among larger households. . .the number of households shelter poor grew by 43 percent from 1970 to 1987.***

In 1970, on the other hand, the number of households shelter poor actually *exceeded* the number paying 25 percent or more by a million (18.7 versus 17.7 million), and the number of individuals shelter poor was almost 40 percent *greater* than the number living in households paying 25 percent or more (Tables 5 and 6).[4] The conventional measure thus overstates the aggregate *growth* of affordability problems in the years since 1970. While the shelter poverty measure certainly reveals a substantial worsening of the housing problem over this period, it also highlights the extent to which the problem has deeper roots; it is neither short-term nor recent in its origins. Factors which were peculiar to the 1970-87 period, such as household formation by baby-boomers, simply cannot explain as much of the housing affordability problem as the conventional measure would indicate.

In addition, the shelter poverty approach locates the problem of housing affordability in a population somewhat different from that identified by the conventional percent-of-income measures. Specifically, the insights about household size revealed by the 1987 data are further highlighted by the divergent experience of small and large households over time. Small households (of one or two persons) had slightly higher rates of shelter poverty in 1970 (32 percent) than households of three persons or more (29 percent). By 1975 these rates had reversed (Table 6), and the incidence of shelter poverty among larger households has remained consistently above that of small households ever since, a differential that has been seven to eight percentage points throughout the 1980s.

Even though the *number* of small households shelter poor has grown by 40 percent since 1970 (43 percent between 1970 and the peak year of 1983), the *incidence* of shelter poverty among such households dropped and has remained below 30 percent, even in the recession of the early 1980s, reaching a low of less than 26 percent in 1987, due to the tremendous increase in the number of small households of relatively high income. Among larger households, on the other hand, the number of households shelter poor grew by 43 percent from 1970 to 1987, while the incidence *rose* to 34 percent (with a peak of 36 percent

## TABLE 5

### Number of Households (millions)
### U.S. 1970–1987

| Year | Household Size: 1 Person | 2 Persons | 3 Persons | 4 Persons | 5 Persons | 6-or more Persons | Total | Total Persons In HH* | Median Household Income $87 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | **All Households** | | | | | |
| 1970 | 11.02 | 18.51 | 10.49 | 9.81 | 6.04 | 6.35 | 62.22 | 192.8 | $24,590 |
| 1975 | 14.26 | 22.29 | 12.47 | 11.16 | 6.24 | 5.41 | 71.83 | 209.4 | 24,180 |
| 1976 | 14.73 | 22.84 | 12.59 | 11.53 | 6.45 | 5.18 | 73.33 | 212.5 | 24,160 |
| 1977 | 15.69 | 23.05 | 12.83 | 11.82 | 6.36 | 4.83 | 74.58 | 212.9 | 24,560 |
| 1978 | 17.06 | 23.66 | 13.16 | 12.00 | 6.11 | 4.54 | 76.53 | 214.0 | 24,040 |
| 1979 | 17.63 | 24.19 | 13.53 | 12.15 | 6.17 | 4.30 | 77.96 | 216.1 | 23,000 |
| 1980 | 17.62 | 24.86 | 13.69 | 12.73 | 6.12 | 4.38 | 79.39 | 220.6 | 22,060 |
| 1981 | 18.55 | 25.93 | 14.30 | 13.30 | 6.33 | 4.05 | 82.47 | 226.6 | 21,870 |
| 1983 | 18.88 | 26.50 | 14.90 | 13.62 | 6.15 | 3.90 | 83.94 | 229.3 | 22,130 |
| 1985 | 20.99 | 28.24 | 15.45 | 13.96 | 6.29 | 3.51 | 88.43 | 236.7 | 23,650 |
| 1987 | 21.95 | 29.11 | 16.05 | 14.18 | 6.26 | 3.34 | 90.89 | 240.7 | 24,470 |
| | | | | **Shelter Poor** | | | | | |
| 1970 | 4.33 | 5.06 | 2.12 | 2.58 | 1.89 | 2.76 | 18.73 | 59.6 | $ 8,780 |
| 1975 | 4.33 | 5.91 | 3.29 | 3.10 | 2.19 | 2.53 | 21.35 | 66.8 | 9,590 |
| 1976 | 4.35 | 6.09 | 3.34 | 3.25 | 2.27 | 2.51 | 21.80 | 68.3 | 9,660 |
| 1977 | 4.65 | 5.92 | 3.28 | 3.31 | 2.21 | 2.33 | 21.70 | 66.8 | 9,370 |
| 1978 | 4.97 | 6.03 | 3.21 | 3.50 | 2.24 | 2.20 | 22.15 | 67.1 | 10,070 |
| 1979 | 5.09 | 5.94 | 3.69 | 3.55 | 2.33 | 2.16 | 22.75 | 69.0 | 9,810 |
| 1980 | 5.31 | 6.83 | 4.13 | 4.05 | 2.49 | 2.37 | 25.18 | 76.6 | 9,030 |
| 1981 | 5.50 | 7.24 | 4.27 | 4.33 | 2.72 | 2.31 | 26.37 | 79.9 | 8,760 |
| 1983 | 5.91 | 7.51 | 4.56 | 4.65 | 2.60 | 2.18 | 27.40 | 81.6 | 8,710 |
| 1985 | 5.82 | 7.22 | 4.50 | 4.56 | 2.67 | 2.01 | 26.78 | 80.0 | 8,890 |
| 1987 | 5.92 | 7.24 | 4.48 | 4.44 | 2.64 | 1.82 | 26.53 | 78.1 | 9,200 |
| | | | | **Paying 25 Percent Or More** | | | | | |
| 1970 | 5.85 | 6.00 | 2.14 | 1.81 | 0.95 | 0.97 | 17.72 | 43.0 | $ 8,400 |
| 1975 | 6.84 | 6.95 | 2.90 | 2.05 | 1.08 | 0.92 | 20.74 | 49.4 | 10,640 |
| 1976 | 7.16 | 7.42 | 3.11 | 2.29 | 1.19 | 0.97 | 22.13 | 53.1 | 11,160 |
| 1977 | 7.90 | 7.94 | 3.46 | 2.61 | 1.26 | 1.00 | 24.17 | 57.8 | 11,620 |
| 1978 | 8.55 | 8.15 | 3.61 | 2.71 | 1.27 | 0.92 | 25.21 | 59.3 | 12,070 |
| 1979 | 8.95 | 8.58 | 3.77 | 2.73 | 1.33 | 0.92 | 26.27 | 61.4 | 12,140 |
| 1980 | 9.10 | 9.22 | 4.10 | 3.06 | 1.42 | 1.08 | 27.99 | 66.8 | 10,990 |
| 1981 | 9.61 | 9.87 | 4.41 | 3.40 | 1.62 | 1.10 | 30.00 | 72.0 | 11,120 |
| 1983 | 10.37 | 10.61 | 5.04 | 4.06 | 1.82 | 1.24 | 33.13 | 80.8 | 11,350 |
| 1985 | 10.43 | 10.29 | 5.55 | 4.78 | 2.21 | 1.36 | 34.62 | 87.8 | 11,980 |
| 1987 | 11.27 | 10.74 | 5.87 | 4.85 | 2.29 | 1.35 | 36.37 | 91.0 | 12,230 |

* The TOTAL NUMBER OF PERSONS IN HOUSEHOLDS is equal to the sum of the products of household size by number of households of that size. For households of 6-or-more persons, household size is equal to the mean size of such households, obtained from the Current Population Survey for that year. It is interesting that as the number of large households has decreased, the mean size of such households has increased, from 6.3 persons in 1970 to 6.9 in 1975, 7.0 in 1980, 7.3 in 1985 and 7.4 in 1987. This increase in the mean size of large households is probably due to rising incidence of doubling up, group living, and other shared housing arrangements.

**Table 6**

**Percent of Households**
**U.S. 1970-1987**

| Year | Household Size: 1 Person | 2 Persons | 3 Persons | 4 Persons | 5 Persons | 6-or more Persons | Total | 1 & 2 Person Households | 3+ Person Households | Total Persons in HH |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **Shelter Poor** | | | | | |
| 1970 | 39.3% | 27.3% | 20.2% | 26.3% | 31.2% | 43.5% | 30.1% | 31.8% | 28.6% | 30.9% |
| 1975 | 30.4 | 26.5 | 26.4 | 27.8 | 35.1 | 46.7 | 29.7 | 28.0 | 31.5 | 31.9 |
| 1976 | 29.5 | 26.7 | 26.5 | 28.2 | 35.1 | 48.5 | 29.7 | 27.8 | 31.8 | 32.1 |
| 1977 | 29.6 | 25.7 | 25.6 | 28.0 | 34.8 | 48.3 | 29.1 | 27.3 | 31.1 | 31.4 |
| 1978 | 29.1 | 25.5 | 24.4 | 29.2 | 36.7 | 48.3 | 28.9 | 27.0 | 31.1 | 31.4 |
| 1979 | 28.9 | 24.5 | 27.2 | 29.2 | 37.8 | 50.2 | 29.2 | 26.4 | 32.4 | 31.9 |
| 1980 | 30.1 | 27.5 | 30.2 | 31.8 | 40.7 | 54.0 | 31.7 | 28.6 | 35.3 | 34.7 |
| 1981 | 29.6 | 27.9 | 29.9 | 32.6 | 43.0 | 57.1 | 32.0 | 28.6 | 35.9 | 35.3 |
| 1983 | 31.3 | 28.3 | 30.6 | 34.2 | 42.2 | 56.0 | 32.6 | 29.6 | 36.3 | 35.6 |
| 1985 | 27.7 | 25.6 | 29.1 | 32.7 | 42.5 | 57.2 | 30.3 | 26.5 | 35.1 | 33.8 |
| 1987 | 27.0 | 24.9 | 27.9 | 31.3 | 42.1 | 54.7 | 29.2 | 25.8 | 33.6 | 32.4 |
| | | | | | **Paying 25 Percent Or More** | | | | | |
| 1970 | 53.1% | 32.4% | 20.4% | 18.5% | 15.7% | 15.4% | 28.5% | 40.1% | 18.0% | 22.3% |
| 1975 | 48.0 | 31.2 | 23.2 | 18.4 | 17.3 | 17.1 | 28.9 | 37.7 | 19.7 | 23.6 |
| 1976 | 48.6 | 32.5 | 24.7 | 19.8 | 18.4 | 18.7 | 30.2 | 38.8 | 21.1 | 25.0 |
| 1977 | 50.3 | 34.5 | 26.9 | 22.0 | 19.8 | 20.8 | 32.4 | 40.9 | 23.2 | 27.2 |
| 1978 | 50.1 | 34.5 | 27.4 | 22.6 | 20.8 | 20.3 | 32.9 | 41.0 | 23.8 | 27.7 |
| 1979 | 50.8 | 35.5 | 27.9 | 22.5 | 21.6 | 21.3 | 33.7 | 41.9 | 24.2 | 28.4 |
| 1980 | 51.7 | 37.1 | 30.0 | 24.0 | 23.2 | 24.7 | 35.3 | 43.1 | 26.2 | 30.3 |
| 1981 | 51.8 | 38.0 | 30.8 | 25.6 | 25.5 | 27.0 | 36.4 | 43.8 | 27.7 | 31.8 |
| 1983 | 54.9 | 40.0 | 33.8 | 29.8 | 29.5 | 31.8 | 39.5 | 46.2 | 31.5 | 35.2 |
| 1985 | 49.7 | 36.5 | 35.9 | 34.3 | 35.1 | 38.8 | 39.2 | 42.1 | 35.5 | 37.1 |
| 1987 | 51.4 | 36.9 | 36.6 | 34.2 | 36.5 | 40.4 | 40.0 | 43.1 | 36.0 | 37.8 |

***On the 25 percent measure, both large and small households have experienced a rise in the incidence of affordability problems.***

in 1983), as shelter poverty among larger households increased at a faster rate than the overall increase in households of three persons or more (Tables 5 and 6).

The conventional (25 percent) measure paints a substantially different picture. Unlike shelter poverty, the conventional standard continues to suggest that small households are substantially worse off (by seven percentage points in 1987) than larger households, although the difference has decreased since 1970, when small households had conventional affordability problems at more than twice the rate as larger households. On the 25 percent measure, both large *and* small households have experienced a rise in the incidence of affordability problems, although the increase has been far greater for large than for small households (Table 6).

## The Trend to Smaller Households

From 1970 to 1987 the total number of households in the U.S. increased by 46 percent, from 62 million to 91 million, while the number of persons living in these households rose only 25 percent, as the average number of persons per household declined sharply (Table 5).

***This shift toward smaller households over the 1970-87 period has concealed an upward trend in the incidence of affordability problems.***

Most of the growth since 1970 has been among households of one and two persons: the number of one-person households doubled, rising from 11 million in 1970 to 22 million in 1987; the number of two-person households also increased by nearly 11 million, from 18.5 million to over 29 million, a 57 percent expansion. The number of three- and four-person households also grew substantially, but not as fast as smaller households: three-person households increased by 53 percent, from 10.5 million in 1970 to 16 million in 1987; households of four persons saw a 45 percent increase, from a little under 10 million to a little over 14 million. By contrast, the number of households with five persons has fluctuated narrowly between 6 million and 6.5 million, with no trend apparent; and the number of households of six persons or more has dropped sharply, from 6.3 million in 1970 to only 3.3 million in 1985, a 47 percent decrease (Table 5).

One-person households have increased their *share* steadily, from under 18 percent in 1970 to over 24 percent of all households in 1987. While two-person households increased their proportion only slightly, up from a little under 30 percent to 32 percent, what is most striking is that they have remained the modal household size, comprising nearly one-third of all households. Together, one- and two-person households grew from 47 percent of all households in 1970 to a slight majority by 1975, with their share increasing to 56 percent by 1987. Households with three and four persons have seen virtually no change in their proportion, remaining 33 percent of all households throughout the entire period. Households with five persons or more have, of course, become an ever smaller share of all households, falling from 20 percent in 1970 to under 11 percent by 1987, with the share of five-person households decreasing much less than six-or-more-person households. There has thus been a symmetry in the shifting proportions of households by size, with the dramatic rise in the share of one-person households corresponding to the equally dramatic fall in the proportion of households with six persons or more, and the more modest growth in the proportion of two-person households matching the equally modest decline in the share of five-person households.

To some extent this shift toward smaller households over the 1970-87 period has concealed an upward trend in the incidence of affordability problems. Thus, had the household size mix been unchanged from 1970 to 1987, the incidence of shelter poverty among people in households would have stood at 36.3 percent in 1987 rather than its actual value of 32.4 percent. This constant-mix incidence of 36.3 percent in 1987 would then most appropriately be compared with the 1970 inci-

dence of 30.9 percent. And while the factors causing the deferral and declining rates of childbearing by women are many and complex, there is evidence that the continuing desire for homeownership in the face of the high cost of housing can contribute to the decision to limit fertility (Hohm, 1984). Housing affordability itself is thus part of the reason for the shift to smaller households.

### Household Changes By Tenure

During the 1970s the number of renter households increased slowly but steadily by about 450,000 a year, while homeowners increased at a little less regular pace averaging about 1.3 million a year. Then, from 1980 to 1985 the historic pattern reversed, with the number of renters increasing on average by 1.1 million a year, and the number of homeowners by only a little over 700,000 a year (Tables 7 and 9). Increasingly, those middle-income households who, in the past, would have expected to become homeowners but could not now afford homeownership remained in the rental market, greatly exacerbating the affordability pressures on low- and moderate-income renters. From 1985 to 1987 household formation slowed sharply and interest rates declined, so that despite continuing increases in house prices there was a resurgence in homeownership: the number of homeowner households increased by an average of 1 million a year, while renter households increased by only 220,000 a year.

***Increasingly. . .middle-income households who, in the past, would have expected to become homeowners. . .remained in the rental markets.***

The trend toward smaller households has been much more substantial among homeowners than renters, as most renters lived either alone or with one other person even prior to 1970. In 1970 the median size of renter households was 2.2 persons, with 57 percent of all renter households containing two persons or less; by 1976 the median size had decreased slightly to 2.0 persons, where it has remained for the past decade. One- and two-person households have accounted for nearly two-thirds of all renter households for the past decade (Table 7).

Among homeowners the median size has declined from 3.1 in 1970 to 2.4 persons in 1987. In 1970 42 percent of all homeowner households had just one or two persons; since then this proportion has increased steadily, finally becoming a 51 percent majority in 1985 and 52 percent in 1987. Among homeowners, two-person households have long been the model size, ranging from 30 percent of all homeowners in 1970 to 34 percent since 1985. The big shift among homeowners has been the decline of five-or-more-person households and growth of one-person households. Nonetheless, the number of one-person households remains just half the number of two-person homeowners, and about equal to the number of both three-person and four-person homeowner households (Table 9).

### Trends in Homeownership Rates

As has been widely publicized, the long increase in the homeownership rate since World War II reached a peak of about 66 percent in 1980, then declined nearly three percentage points before bottoming out at

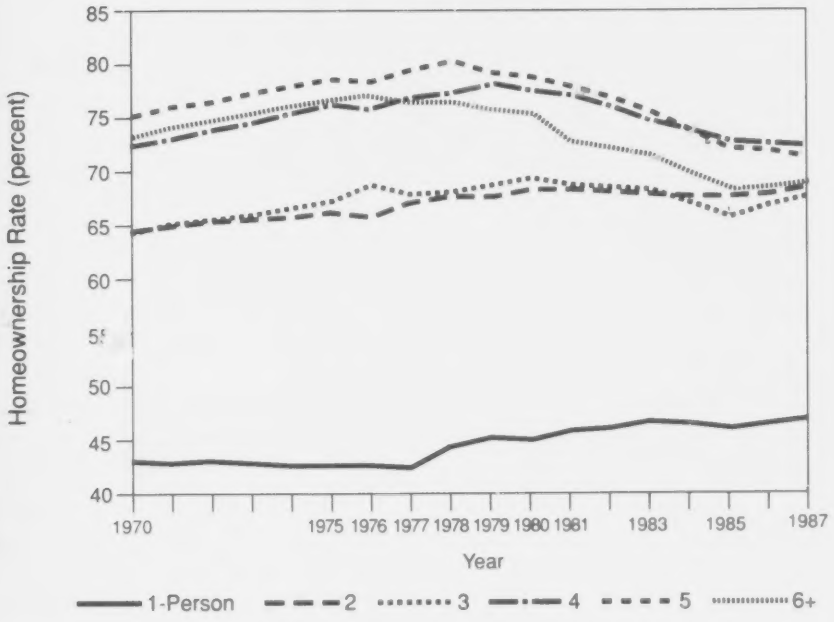
mid-decade and turning up slightly over the past several years. This overall trend, though, is a mixture of diverse experiences of different sub-groups.[5]

**The decline in the overall homeownership rate during the 1980s has not affected one-person households.**

Although the homeownership rate of one-person households has been consistently below 50 percent, the decline in the overall homeownership rate during the 1980s has not affected one-person households: slight dips in 1980 and 1985 have been more than offset by a continuing secular increase (Figure 5). The homeownership rate of single, *elderly* households has leveled off at about 60 percent during this decade (with a slight upturn to almost 62 percent between 1985 and 1987), following a steady climb during the 1970s. *Non-elderly* singles had their homeownership rate actually decline from 1970 to 1977, to a low of 32 percent, but have since increased their homeownership rate to 37 percent—still one of the lowest rates, though, of any group.

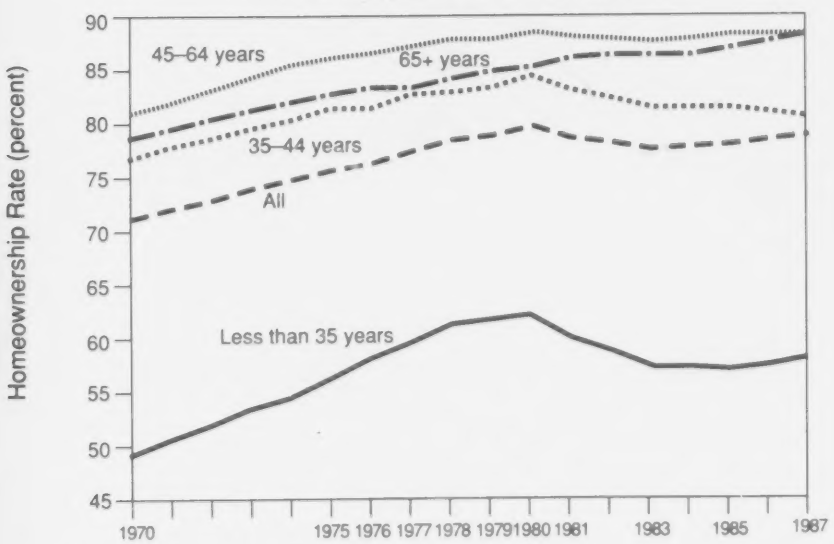
*As we examine successively larger households, we find the homeownership rates peaking earlier and earlier in time and declining by greater and greater magnitudes*. The homeownership rate of two-person households peaked at 68.5 percent in 1980 and 1981, dropped less than one percentage point over the next four years and then recovered between 1985 and 1987. Among three-person households the rate peaked earlier and higher at 68.9 percent in 1979 and dropped nearly three percentage points by 1985 before turning up again and reaching 67.8 percent in 1987. *Strikingly, four- and five-person households have had the highest homeownership rates, yet have experienced a decade of unremitting decline*. The rate for four-person households peaked at 78.3 percent in 1979, and has continued to fall ever since, dropping nearly six percentage points to 72.4 percent by 1987. This pattern is similar for five-person households, who had their peak homeownership rate of 80.3 percent in 1978, decreasing by nine percentage points since then to 71.4 percent in 1987. Households with six or more persons reached the peak of 77.1 percent homeownership in 1976, then declined nine percentage points by 1985 before increasing very slightly to 68.9 percent in 1987 (Figure 5).

**Figure 5**
**Homeownership Rate by Household Size**
**1970–87**




Note: Missing-year data are interpolated.

**Figure 6**
**Homeownership Rate by Age**
**Married-Couple Households, 1970–87**




Note: Missing-year data are interpolated.

Among *married-couple* households the homeownership rate has been greater than 75 percent since the mid 1970s; it peaked at 79.3 percent in 1980, dropped by two percentage points by 1983 and has since risen to 78.5 by 1987. Over 80 percent of married-couple households in age groups 35 and over have been homeowners since the mid 1970s. However, the 35-to-44-year-old group reached their highest rate of homeownership (84.2 percent) in 1980 and have had a steady drop, without recovery, to 80.3 percent in 1987. Among the under-35, married-couple households there did occur a much publicized drop in homeownership, from 62.1 percent in 1980 to 56.9 percent in 1985, but for this group—in contrast to the situation for the 35-to-44-year-old-group—there has been an increase to 58.0 percent in 1987 (Figure 6).

***There is a far more serious affordability problem for many who already own houses, who are burdened with huge mortgage payments and face rising rates of default and foreclosure.***

*Non-married-couple households of two persons or more* (primarily female householders without spouses but with other family members living with them) have had secularly decreasing homeownership rates, declining from 49 percent in 1970 to 43 percent in 1985, with just a slight upturn between 1985 and 1987.

Homeownership trends, especially among young married-couple households, have been the subject of vast amounts of discussion and concern, resulting in various state and local initiatives to facilitate first-time homebuying and a number of proposals for federal action. Meanwhile, academic analysts debate whether declining homeownership will take care of itself as the housing market softens with the end of the baby-boom bulge, so that the government need only let demographic and market forces provide an "automatic" correction (Mankiw and Weil, 1989), or whether, on the contrary, the downpayment hurdle remains so great that the market alone cannot overcome the problem (Joint Center for Housing Studies, 1988 and 1989).

While the decline in homeownership is certainly of concern—especially, as we have seen, among larger households—it would be wrong to confuse the narrower problem of declining homeownership with the much broader affordability crisis. There is a far more serious affordability problem for many who already own houses, who are burdened with huge mortgage payments and face rising rates of default and foreclosure (see the section on housing affordability and financial instability below). And of course the majority of shelter poor renters had no prospects of homeownership even before this decade; at most, they might hope that an expansion of homeownership opportunities for middle-income households would reduce slightly the competition for rental housing.

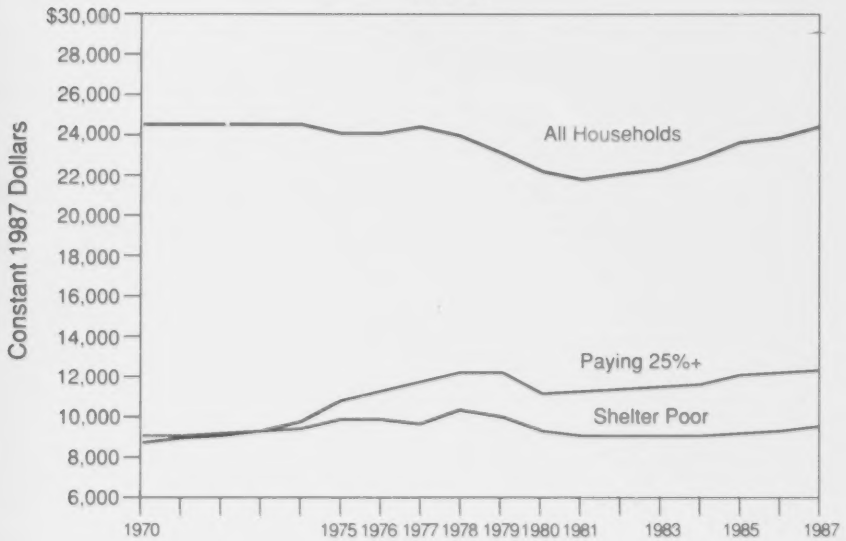
## Trends in Household Income

Median real household income has remained virtually stagnant at about $22,000-$25,000 (in 1987 dollars) since 1970. There was a dip in the 1974-75 recession, a slow recovery through 1977, a steady decline totaling ten percent from 1978 through 1981, and then slow but steady improvement but with income still not quite at the 1970 level even by 1987 (Table 5 and Figure 7). However, due to the decrease in household size over this period, real per capita income has increased despite the stagnation of real household income.

***Median real household income has remained virtually stagnant at about $22,000-$25,000 (in 1987 dollars) since 1970.***

Disaggregating by tenure and household size sharpens the picture. In 1970 median renter income was 65 percent of median homeowner income; from 1977 through 1981 the ratio stabilized at about 55 percent, but from 1981 through 1985 the deterioration continued, falling to a low of 52 percent in 1985 before increasing slightly to a little under 54 percent in 1987 (Tables 7 and 9 and Figure 8).

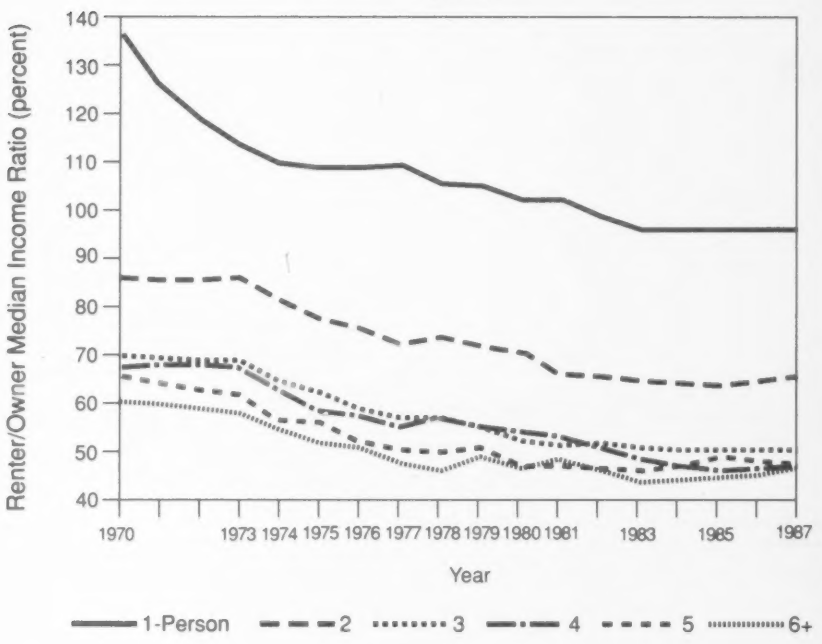
**Figure 7**
**Median Household Income**
**1970–87**




Note: Missing-year data are interpolated.

***Renter households of all sizes from two persons on up have been experiencing a long secular decline in real incomes.***

**Figure 8**
**Renter/Owner Income Ratio by Household Size**
**1970–87**

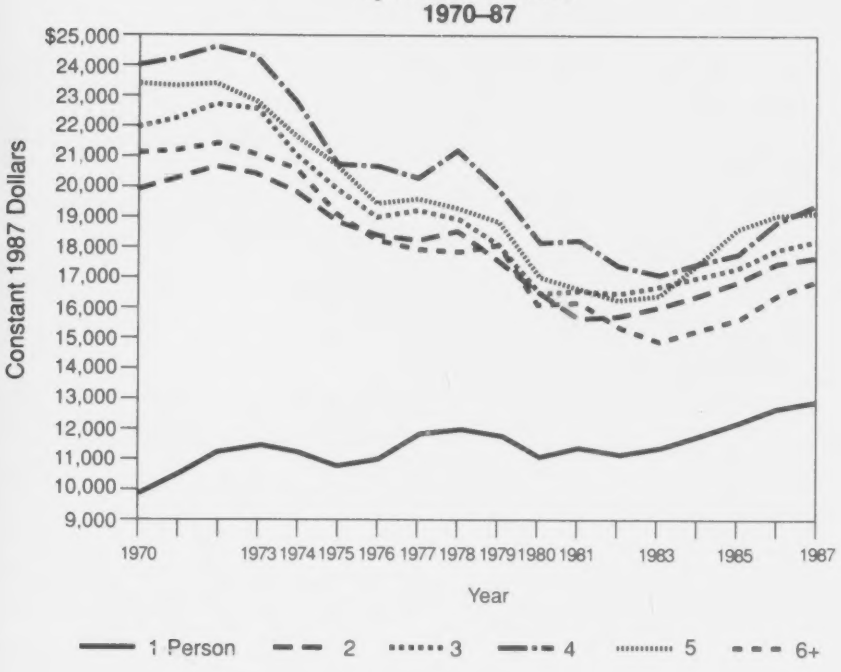



Note: Missing-year data are interpolated.

Among renters, one-person households are considerably poorer than larger renter households; this is the one group of renters, however, for whom real income rose over the 1970-1987 period (Figure 9). Apart from cyclical fluctuations, renter households of all sizes from two persons on up have been experiencing a long secular decline in real incomes, from about $22,000 (measured in 1987 dollars) in 1970 to about $17,000 in 1987. The modest upturn in median real incomes since the early 1980s cannot by and large be explained as an improvement in the economic condition of most renters. Since homeownership rates fell from 1980 through 1985, the effect of comparatively higher-income households renting instead of owning has been to pull up the median income figures for renters. The fact that the median income of renters *relative* to homeowners continued to fall during most of this period is strong evidence that households who would have been renters in both periods experienced continued deterioration of their real income in the latter period.

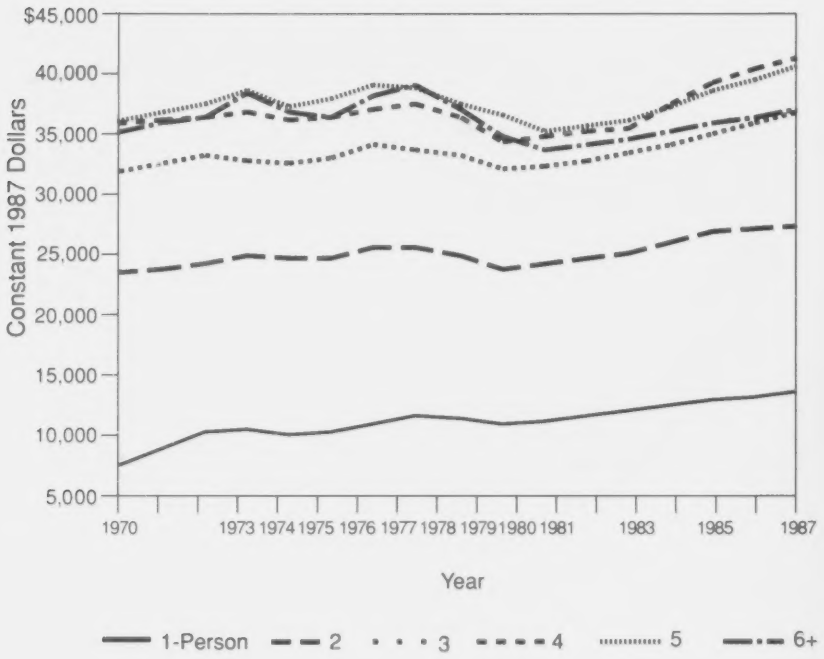
Homeowner incomes have also fluctuated with the business cycle, though less sharply than renter incomes. Nonetheless, homeowner households of all sizes show a slight secular increase in real median incomes (Figure 10). Again, this is in part a spurious improvement to the extent that it reflects the trend of first-time homebuying to increasingly higher-income young households.

**Figure 9**
**Median Household Income of Renters by Household Size 1970–87**




Note: Missing-year data are interpolated.

**Figure 10**
**Median Household Income of Owners by Household Size, 1970-87**




Note: Missing-year data are interpolated.

***Between 1970 and 1983 the number of households shelter poor increased by 46 percent.***

## The Pattern of Affordability Problems

Between 1970 and 1983 the number of households shelter poor increased by 46 percent, from 18.7 million to 27.4 million, before declining slowly to 26.8 million in 1985 and 26.5 million in 1987. The number of households paying 25 percent or more of their incomes for housing increased much more rapidly, with no periods of decline, more than doubling from 17.7 million in 1970 to 36.4 million in 1987 (Table 5).

The number of households shelter poor seems to be more sensitive to business cycle fluctuations in income and less sensitive to housing cost increases than is the number of households paying 25 percent or more. From 1970 through 1979 shelter poverty increased by an average of about 450,000 households per year, but the annual increase during the first five years, dominated by unprecedented inflation and the 1974-75 recession, averaged 525,000. From 1975 through 1977 there was virtually no increase in shelter poverty, followed by an increase of about 450,000 from 1977 to 1978 and 600,000 from 1978 to 1979, as inflation increased and the rate of economic growth peaked and began to abate. Then, with the economy sharply declining, shelter poverty increased by 2.4 million from 1979 to 1980, and another 1.2 million from 1980 to 1981. From 1981 to 1983, as the economy improved but housing costs continued to rise, the annual increase moderated to a

little over 500,000. And from 1983-85 there was actually a decline averaging over 300,000 a year (Table 5), reflecting both the recovery from the 1982 recession and a dramatic decrease (3 million households, 13 percent) in the total number of homeowners with incomes under $20,000; this decline may reflect, among other factors, foreclosures and forced sales in the face of job losses or other income problems, constituting an ironic way for affordability to "improve" among homeowners. From 1985 to 1987 shelter poverty leveled off, declining by a statistically insignificant 250,000 over the two-year period.

In 1970, 30 percent of households were shelter poor. The percent of households shelter poor showed little variation from 1970 through 1979, then increased steadily to nearly 33 percent in 1983 before declining to 29 percent—slightly below its 1970 level—in 1985. The percent of households paying 25 percent or more, on the other hand, increased steadily from 28 percent in 1970 to about 40 percent from 1983 through 1987 (Table 6).

As noted earlier, because shelter poor households tend to be larger than average, and households paying 25 percent or more smaller than average, the incidence of the *population* with affordability problems differs from the incidence for *households*. The percent of the population shelter poor rose from 30.9 in 1970 to 35.6 in 1983, slowly decreasing to 32.4 percent in 1987, while the percent paying more than 25 percent rose continuously from 22.3 in 1970 to 37.8 percent by 1987.

During the 1970s, as real median household income stagnated at about $24,000 (in 1987 dollars), shelter poverty moved only slowly up the income distribution: the real median income of shelter poor households increased from $8,800 in 1970 (35 percent of the median of all households) to $10,000 in 1979 (42 percent of the all-household median). The real median income of households paying 25 percent or more, however, increased during the same period from $8,400 (35 percent of the median for all households) to over $12,000 (53 percent of the all household median [Figure 5]).

The decline in the median real income of all households from the late 1970s through 1981 led to a dip from 1979 to 1980 in the medians of households paying more than they can afford on both standards. Thereafter, though, despite the rise in the median real income of all households with economic recovery, the median income of shelter poor households continued to decline in inflation-adjusted dollars through 1983 and in relation to all households through 1987 (to 38 percent of the all household median). The shelter poor are almost entirely people in the bottom third of the income distribution, who are being left behind by the increasing inequality in the distribution of income. On the other hand, the median income of households paying 25 percent or more has tended to rise along with the median for all households,

***The shelter poor are almost entirely people in the bottom third of the income distribution, who are being left behind by the increasing inequality in the distribution of income.***

remaining at a stable 50 percent of the all household median in the 1980s; that is, households paying 25 percent or more have become increasingly typical of the overall income distribution, including a growing proportion of middle and higher-income people with rising real incomes as well as lower-income people whose incomes are not increasing.

These aggregate trends in households paying more than they can afford on the shelter poverty and conventional standards are, of course, reflective of the interactions among the demographic shifts noted earlier and diverse affordability experiences by tenure and household size. Finer-grained examination is needed to understand how various segments of the population have fared over the past two decades.

***From 1970 through 1987 the number of shelter poor renter households increased from 8.4 million to 13.9 million, a 66 percent increase.***

**Shelter Poverty Trends by Tenure: Worse for Renters**

Based upon the consistent housing cost measurement provided by the decennial Census and the American (formerly, "Annual") Housing Survey (AHS), since 1970 renters' housing costs have risen on average at about the same rate as homeowners' costs. Since renter incomes, as we have seen, have always been lower and have also lagged well behind the growth in homeowner incomes, the extent of the housing affordability problem among renters has increased much more substantially than among homeowners—by both the shelter poverty and the conventional measures of affordability.

From 1970 through 1987 the number of shelter poor *renter* households increased from 8.4 million to 13.9 million, a 66 percent increase, with the incidence of shelter poverty growing from 37 percent of all renters in 1970 to a peak of over 45 percent in 1983. From 1983 to 1987 the number of renters shelter poor increased, but the number of middle and higher income renters rose faster (with declining homeownership), so the incidence declined slightly to 42 percent. *Throughout the 1980s, though, the incidence of shelter poverty among renters has been higher than at any point during the 1970s* (Tables 7 and 8).

Meanwhile, the number of shelter poor *homeowners* rose by 37 percent from 1970 to 1983 and then declined by ten percent from 1983 to 1987. The *incidence* of shelter poverty among homeowners has remained fairly stable throughout the period, slowly declining from 26 percent in 1970 to 23 percent in 1978, then rising to 26 percent from 1980 through 1983 and since falling to 22 percent by 1987 (Tables 9 and 10).

## Table 7

## Number of Renter Households (millions)
## U.S. 1970-1987

| Year | Household Size: 1 Person | 2 Persons | 3 Persons | 4 Persons | 5 Persons | 6-or more Persons | Total | Total Persons In HH* | Median Household Income$87 | Median Size |
|---|---|---|---|---|---|---|---|---|---|---|
| **All Households** | | | | | | | | | | |
| 1970 | 6.26 | 6.50 | 3.72 | 2.67 | 1.49 | 1.70 | 22.33 | 60.3 | $18,740 | 2.2 |
| 1975 | 8.16 | 7.52 | 4.08 | 2.62 | 1.32 | 1.26 | 24.96 | 61.2 | 16,680 | 2.1 |
| 1976 | 8.46 | 7.74 | 3.92 | 2.75 | 1.38 | 1.19 | 25.42 | 61.8 | 16,370 | 2.0 |
| 1977 | 9.01 | 7.58 | 4.10 | 2.70 | 1.30 | 1.13 | 25.82 | 61.6 | 16,500 | 2.0 |
| 1978 | 9.48 | 7.61 | 4.18 | 2.70 | 1.21 | 1.06 | 26.25 | 61.5 | 16,200 | 2.0 |
| 1979 | 9.64 | 7.77 | 4.21 | 2.64 | 1.26 | 1.03 | 26.55 | 61.9 | 15,650 | 2.0 |
| 1980 | 9.66 | 7.83 | 4.18 | 2.84 | 1.29 | 1.08 | 26.88 | 63.2 | 14,610 | 2.0 |
| 1981 | 10.03 | 8.15 | 4.45 | 3.01 | 1.39 | 1.10 | 28.12 | 66.4 | 14,620 | 2.0 |
| 1983 | 10.05 | 8.47 | 4.71 | 3.40 | 1.49 | 1.10 | 29.22 | 69.9 | 14,710 | 2.0 |
| 1985 | 11.32 | 9.09 | 5.24 | 3.77 | 1.74 | 1.12 | 32.28 | 77.2 | 15,270 | 2.0 |
| 1987 | 11.65 | 9.17 | 5.16 | 3.91 | 1.79 | 1.04 | 32.72 | 77.7 | 16,230 | 2.0 |
| **Shelter Poor** | | | | | | | | | | |
| 1970 | 2.22 | 1.94 | 1.17 | 1.16 | 0.77 | 1.10 | 8.36 | 25.7 | $ 8,080 | |
| 1975 | 2.44 | 2.60 | 1.77 | 1.35 | 0.79 | 0.88 | 9.83 | 28.3 | 8,490 | |
| 1976 | 2.47 | 2.73 | 1.79 | 1.48 | 0.90 | 0.88 | 10.26 | 29.9 | 8,640 | |
| 1977 | 2.54 | 2.67 | 1.83 | 1.47 | 0.84 | 0.86 | 10.21 | 29.4 | 8,450 | |
| 1978 | 2.66 | 2.71 | 1.99 | 1.51 | 0.80 | 0.79 | 10.46 | 29.6 | 9,030 | |
| 1979 | 2.71 | 2.72 | 2.10 | 1.52 | 0.86 | 0.78 | 10.70 | 30.3 | 8,680 | |
| 1980 | 2.86 | 3.00 | 2.26 | 1.72 | 0.93 | 0.83 | 11.61 | 33.0 | 8,110 | |
| 1981 | 2.91 | 3.34 | 2.41 | 1.82 | 0.99 | 0.88 | 12.35 | 35.2 | 7,910 | |
| 1983 | 3.28 | 3.49 | 2.47 | 2.11 | 1.01 | 0.88 | 13.23 | 37.4 | 7,390 | |
| 1985 | 3.40 | 3.52 | 2.60 | 2.20 | 1.11 | 0.86 | 13.69 | 38.9 | 7,600 | |
| 1987 | 3.45 | 3.61 | 2.58 | 2.24 | 1.20 | 0.78 | 13.86 | 39.1 | 8,240 | |
| **Paying 25 Percent Or More** | | | | | | | | | | |
| 1970 | 3.12 | 2.28 | 1.09 | 0.80 | 0.40 | 0.46 | 8.15 | 19.3 | $ 7,960 | |
| 1975 | 3.96 | 3.04 | 1.57 | 0.98 | 0.48 | 0.45 | 10.47 | 24.1 | 9,290 | |
| 1976 | 4.14 | 3.30 | 1.63 | 1.07 | 0.55 | 0.47 | 11.16 | 25.9 | 9,400 | |
| 1977 | 4.51 | 3.40 | 1.77 | 1.14 | 0.52 | 0.48 | 11.82 | 27.1 | 9,670 | |
| 1978 | 4.80 | 3.43 | 1.86 | 1.13 | 0.50 | 0.44 | 12.16 | 27.3 | 10,350 | |
| 1979 | 4.95 | 3.64 | 1.98 | 1.15 | 0.55 | 0.43 | 12.70 | 28.5 | 10,090 | |
| 1980 | 5.04 | 3.79 | 2.10 | 1.33 | 0.62 | 0.50 | 13.37 | 30.8 | 9,290 | |
| 1981 | 5.24 | 4.19 | 2.27 | 1.45 | 0.69 | 0.53 | 14.37 | 33.4 | 9,210 | |
| 1983 | 5.70 | 4.58 | 2.57 | 1.84 | 0.81 | 0.62 | 16.11 | 38.3 | 8,910 | |
| 1985 | 6.26 | 4.80 | 2.78 | 1.97 | 0.87 | 0.62 | 17.30 | 40.9 | 9,520 | |
| 1987 | 6.93 | 5.18 | 2.95 | 2.14 | 0.99 | 0.62 | 18.80 | 44.1 | 10,860 | |

**Table 8**

**Percent of Renter Households**
**U.S. 1970-1987**

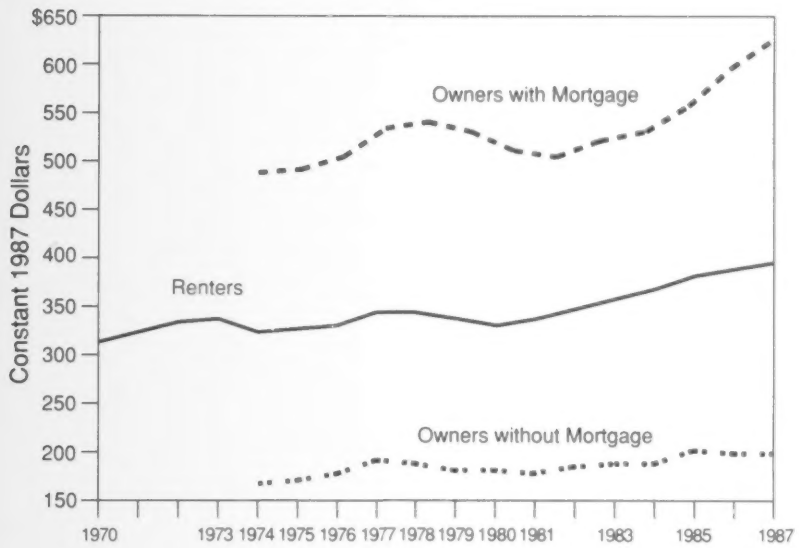
| Year | Household Size: 1 Person | 2 Persons | 3 Persons | 4 Persons | 5 Persons | 6-or more Persons | Total | 1 & 2 Person Households | 3+ Person Households | Total Persons in HH |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **Shelter Poor** | | | | | |
| 1970 | 35.5% | 29.9% | 31.3% | 43.4% | 51.7% | 65.0% | 37.4% | 32.6% | 43.8% | 42.6% |
| 1975 | 29.9 | 34.5 | 43.4 | 51.6 | 59.5 | 69.8 | 39.4 | 32.1 | 51.6 | 46.3 |
| 1976 | 29.3 | 35.2 | 45.7 | 53.8 | 65.6 | 74.6 | 40.3 | 32.1 | 54.8 | 48.3 |
| 1977 | 28.2 | 35.2 | 44.8 | 54.4 | 64.8 | 76.1 | 39.6 | 31.4 | 54.2 | 47.8 |
| 1978 | 28.1 | 35.6 | 47.5 | 56.0 | 66.1 | 74.3 | 39.8 | 31.4 | 55.6 | 48.1 |
| 1979 | 28.1 | 35.0 | 49.9 | 57.6 | 68.7 | 75.8 | 40.3 | 31.2 | 57.6 | 49.0 |
| 1980 | 29.6 | 38.4 | 54.1 | 60.6 | 72.2 | 77.2 | 43.2 | 33.5 | 61.2 | 52.2 |
| 1981 | 29.0 | 40.9 | 54.2 | 60.5 | 71.7 | 79.4 | 43.9 | 34.4 | 61.3 | 53.0 |
| 1983 | 32.6 | 41.2 | 52.4 | 62.1 | 68.1 | 79.5 | 45.3 | 36.5 | 60.5 | 53.4 |
| 1985 | 30.1 | 38.7 | 49.6 | 58.3 | 63.8 | 76.5 | 42.4 | 33.9 | 57.0 | 50.3 |
| 1987 | 29.6 | 39.4 | 49.9 | 57.1 | 67.2 | 75.5 | 42.3 | 33.9 | 57.1 | 50.3 |
| | | | | | **Paying 25 Percent Or More** | | | | | |
| 1970 | 49.8% | 35.1% | 29.3% | 29.8% | 27.1% | 27.4% | 36.5% | 42.3% | 28.7% | 32.1% |
| 1975 | 48.5 | 40.4 | 38.4 | 37.3 | 36.1 | 35.8 | 42.0 | 44.6 | 37.4 | 39.4 |
| 1976 | 49.0 | 42.7 | 41.7 | 38.9 | 39.6 | 39.6 | 43.9 | 46.0 | 40.3 | 41.9 |
| 1977 | 50.1 | 44.8 | 43.3 | 42.1 | 40.3 | 42.3 | 45.8 | 47.7 | 42.4 | 44.0 |
| 1978 | 50.6 | 45.0 | 44.5 | 41.9 | 41.7 | 41.4 | 46.3 | 48.1 | 43.0 | 44.5 |
| 1979 | 51.4 | 46.8 | 47.0 | 43.5 | 43.6 | 41.8 | 47.8 | 49.3 | 44.9 | 46.1 |
| 1980 | 52.1 | 48.5 | 50.2 | 46.7 | 47.9 | 46.3 | 49.7 | 50.5 | 48.4 | 48.7 |
| 1981 | 52.2 | 51.4 | 51.0 | 48.1 | 49.7 | 48.3 | 51.1 | 51.9 | 49.6 | 50.3 |
| 1983 | 56.7 | 54.1 | 54.5 | 54.0 | 54.6 | 56.2 | 55.2 | 55.5 | 54.5 | 54.8 |
| 1985 | 55.3 | 52.8 | 53.0 | 52.3 | 49.8 | 55.1 | 53.6 | 54.2 | 52.5 | 53.0 |
| 1987 | 59.5 | 56.5 | 57.1 | 54.6 | 55.0 | 59.6 | 57.5 | 58.2 | 56.2 | 56.8 |

***Over the entire 1970 to 1987 period, real median gross rent rose by 26 percent, while the real median income of renters declined by 13 percent.***

These long-term trends are reflections of different income and housing cost patterns, though, in each of the decades. For example, over the entire 1970 to 1987 period, real median gross rent *rose* by 26 percent, while the real median income of renters *declined* by 13 percent. But from 1970 to 1980, real median gross rent fluctuated up and down several times, with the overall increase amounting to just 5 percent (Figure 11); meanwhile, the real median income of renters fell 22 percent from 1970 to 1980. That is, the 1970s were a decade of substantial income deterioration for renters, in which housing costs, on average, did not rise much faster than the overall cost of living. By contrast, from 1980 through 1987, real median gross rents rose by 20 percent, i.e., rents increased much faster than the general rise in prices; the real median income of renters also has risen, but by 11 percent, little more than half the rate of increase in housing costs. Furthermore, this increase in income is misleading, as young middle-income households who in the past would have become homeowners pulled up the median income for all renters; the 25th percentile of renter income (which is the median income of those in the lower half of the renter income

distribution) increased in real dollars by only six percent between 1980 and 1987. In sum, during the 1980s renter incomes have, on average, kept up with the overall increase in living costs, but rents have risen much faster than the CPI and faster than renter incomes.

**Figure 11**
**Median Monthly Housing Cost by Tenure**
**1970–87**




Note: Missing-year data are interpolated.

***. . .43 percent of all homeowners have no mortgages on their homes.***

Homeowner housing costs were not obtained in the 1970 Census, but have been collected since 1974 in the AHS. (See endnote 4 on this point.) From 1974 through 1985, the median total housing cost paid by homeowners with single-family homes (for mortgage, property taxes, property insurance, utilities, fuel, water and garbage collection) increased by 144 percent, from $160 to $390, while median homeowner income rose by 136 percent, so that incomes, on average, have almost kept up with typical housing costs for homeowners. Over the same period, median gross rent rose from $142 to $399, a 181 percent increase, while median renter income rose 111 percent, i.e., renter incomes again show a considerable lag behind rising rents.

Since 43 percent of all homeowners have no mortgages on their homes, it is appropriate and revealing to separate the figures on homeowner costs into the two subgroups and then make a comparison with renters. Year after year the median total cost for homeowners *with* mortgages has been about 50 percent higher than median renter cost; but median housing cost for homeowners *without* mortgages has been

## Table 9

### Number of Homeowner Households (millions) U.S. 1970-1987

| Year | Household Size: 1 Person | 2 Persons | 3 Persons | 4 Persons | 5 Persons | 6-or more Persons | Total | Total Persons In HH* | Median Income$87 | Median Size |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **All Households** | | | | | |
| 1970 | 4.76 | 12.01 | 6.77 | 7.14 | 4.55 | 4.65 | 39.89 | 132.6 | $28,400 | 3.1 |
| 1975 | 6.10 | 14.77 | 8.40 | 8.54 | 4.91 | 4.15 | 46.87 | 148.2 | 28,720 | 2.8 |
| 1976 | 6.28 | 15.10 | 8.68 | 8.79 | 5.08 | 3.99 | 47.90 | 150.7 | 28,950 | 2.8 |
| 1977 | 6.68 | 15.47 | 8.74 | 9.12 | 5.06 | 3.71 | 48.76 | 151.3 | 29,990 | 2.8 |
| 1978 | 7.58 | 16.04 | 8.98 | 9.30 | 4.91 | 3.48 | 50.28 | 152.5 | 29,620 | 2.7 |
| 1979 | 7.99 | 16.42 | 9.32 | 9.50 | 4.91 | 3.27 | 51.41 | 154.2 | 28,790 | 2.6 |
| 1980 | 7.95 | 17.03 | 9.51 | 9.89 | 4.83 | 3.30 | 52.52 | 157.4 | 27,300 | 2.6 |
| 1981 | 8.52 | 17.78 | 9.86 | 10.29 | 4.94 | 2.95 | 54.34 | 160.2 | 27,240 | 2.6 |
| 1983 | 8.83 | 18.03 | 10.19 | 10.22 | 4.66 | 2.79 | 54.72 | 159.4 | 27,830 | 2.5 |
| 1985 | 9.67 | 19.15 | 10.21 | 10.18 | 4.55 | 2.39 | 56.15 | 159.5 | 29,350 | 2.5 |
| 1987 | 10.30 | 19.94 | 10.89 | 10.26 | 4.47 | 2.30 | 58.16 | 163.0 | 30,220 | 2.4 |
| | | | | | **Shelter Poor** | | | | | |
| 1970 | 2.11 | 3.12 | 0.95 | 1.42 | 1.12 | 1.66 | 10.37 | 33.9 | $ 9,630 | |
| 1975 | 1.89 | 3.32 | 1.52 | 1.75 | 1.40 | 1.65 | 11.53 | 38.5 | 10,660 | |
| 1976 | 1.87 | 3.37 | 1.55 | 1.77 | 1.36 | 1.63 | 11.55 | 38.4 | 10,920 | |
| 1977 | 2.11 | 3.25 | 1.45 | 1.84 | 1.37 | 1.47 | 11.49 | 37.4 | 10,690 | |
| 1978 | 2.31 | 3.32 | 1.23 | 1.99 | 1.44 | 1.41 | 11.69 | 37.6 | 11,200 | |
| 1979 | 2.38 | 3.22 | 1.59 | 2.03 | 1.47 | 1.38 | 12.06 | 38.7 | 11,110 | |
| 1980 | 2.45 | 3.83 | 1.87 | 2.33 | 1.56 | 1.53 | 13.57 | 43.5 | 10,220 | |
| 1981 | 2.59 | 3.90 | 1.86 | 2.51 | 1.73 | 1.44 | 14.03 | 44.7 | 10,200 | |
| 1983 | 2.63 | 4.02 | 2.09 | 2.54 | 1.58 | 1.30 | 14.16 | 44.2 | 10,240 | |
| 1985 | 2.42 | 3.70 | 1.90 | 2.36 | 1.56 | 1.15 | 13.09 | 41.2 | 10,520 | |
| 1987 | 2.47 | 3.62 | 1.90 | 2.21 | 1.43 | 1.04 | 12.68 | 39.0 | 10,620 | |
| | | | | | **Paying 25 Percent Or More** | | | | | |
| 1970 | 2.73 | 3.72 | 1.05 | 1.02 | 0.55 | 0.51 | 9.57 | 23.6 | $ 8,900 | |
| 1975 | 2.88 | 3.91 | 1.33 | 1.07 | 0.60 | 0.47 | 10.27 | 25.2 | $13,510 | |
| 1976 | 3.02 | 4.11 | 1.48 | 1.22 | 0.64 | 0.50 | 10.97 | 27.2 | $14,140 | |
| 1977 | 3.38 | 4.55 | 1.68 | 1.47 | 0.74 | 0.53 | 12.34 | 30.7 | $15,200 | |
| 1978 | 3.75 | 4.72 | 1.75 | 1.58 | 0.77 | 0.48 | 13.05 | 31.9 | $15,840 | |
| 1979 | 4.00 | 4.94 | 1.79 | 1.58 | 0.78 | 0.49 | 13.58 | 32.9 | $16,010 | |
| 1980 | 4.07 | 5.43 | 2.01 | 1.74 | 0.80 | 0.58 | 14.62 | 36.0 | $13,680 | |
| 1981 | 4.36 | 5.68 | 2.14 | 1.96 | 0.93 | 0.56 | 15.63 | 38.6 | $14,070 | |
| 1983 | 4.67 | 6.03 | 2.47 | 2.22 | 1.00 | 0.62 | 17.02 | 42.4 | $14,510 | |
| 1985 | 4.17 | 5.50 | 2.77 | 2.81 | 1.34 | 0.74 | 17.33 | 46.8 | $16,150 | |
| 1987 | 4.34 | 5.56 | 2.93 | 2.71 | 1.30 | 0.73 | 17.57 | 46.9 | $17,400 | |

**TABLE 10**

**Percent of Homeowner Households**
**U.S. 1970-1987**

| Year | Household Size: 1 Person | 2 Persons | 3 Persons | 4 Persons | 5 Persons | 6-or more Persons | Total | 1 & 2 Person Households | 3 + Person Households | Total Persons in HH |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **Shelter Poor** | | | | | |
| 1970 | 44.3% | 26.0% | 14.0% | 19.8% | 24.5% | 35.6% | 26.0% | 31.2% | 22.2% | 25.6% |
| 1975 | 31.0 | 22.4 | 18.2 | 20.4 | 28.5 | 39.7 | 24.6 | 25.0 | 24.3 | 25.9 |
| 1976 | 29.8 | 22.3 | 17.9 | 20.1 | 26.9 | 40.8 | 24.1 | 24.5 | 23.8 | 25.5 |
| 1977 | 31.5 | 21.0 | 16.6 | 20.2 | 27.0 | 39.8 | 23.6 | 24.2 | 23.0 | 24.7 |
| 1978 | 30.4 | 20.7 | 13.7 | 21.4 | 29 4 | 40.4 | 23.2 | 23.8 | 22.8 | 24.6 |
| 1979 | 29.8 | 19.6 | 17.0 | 21.3 | 29.9 | 42.2 | 23.5 | 22.9 | 23.9 | 25.1 |
| 1980 | 30.8 | 22.5 | 19.7 | 23.5 | 32.3 | 46.5 | 25.8 | 25.1 | 26.5 | 27.7 |
| 1981 | 30.4 | 21.9 | 18.9 | 24.4 | 35.0 | 48.7 | 25.8 | 24.7 | 26.9 | 27.9 |
| 1983 | 29.8 | 22.3 | 20.5 | 24.9 | 34.0 | 46.7 | 25.9 | 24.7 | 27.0 | 27.7 |
| 1985 | 25.0 | 19.3 | 18.6 | 23.2 | 34.4 | 48.1 | 23.3 | 21.2 | 25.5 | 25.8 |
| 1987 | 24.0 | 18.2 | 17.5 | 21.5 | 32.1 | 45.2 | 21.8 | 20.1 | 23.6 | 23.9 |
| | | | | | **Paying 25 Percent Or More** | | | | | |
| 1970 | 57.4% | 31.0% | 15.5% | 14.2% | 12.0% | 11.0% | 24.0 | 38.5% | 13.5% | 17.8% |
| 1975 | 47.3 | 26.5 | 15.8 | 12.6 | 12.2 | 11.4 | 21.9 | 32.5 | 13.4 | 17.0 |
| 1976 | 48.1 | 27.2 | 17.0 | 13.9 | 12.7 | 12.5 | 22.9 | 33.4 | 14.5 | 18.1 |
| 1977 | 50.7 | 29.4 | 19.3 | 16.1 | 14.5 | 14.2 | 25.3 | 35.8 | 16.6 | 20.3 |
| 1978 | 49.5 | 29.4 | 19.4 | 17.0 | 15.7 | 13.8 | 26.0 | 35.9 | 17.2 | 20.9 |
| 1979 | 50.0 | 30.1 | 19.2 | 16.6 | 15.9 | 14.9 | 26.4 | 36.6 | 17.2 | 21.3 |
| 1980 | 51.1 | 31.9 | 21.1 | 17.5 | 16.6 | 17.7 | 27.8 | 38.0 | 18.6 | 22.9 |
| 1981 | 51.3 | 31.9 | 21.8 | 19.0 | 18.8 | 19.1 | 28.8 | 38.2 | 19.9 | 24.1 |
| 1983 | 52.9 | 33.4 | 24.3 | 21.7 | 21.5 | 22.2 | 31.1 | 39.8 | 22.7 | 26.6 |
| 1985 | 43.1 | 28.7 | 27.2 | 27.6 | 29.5 | 31.2 | 30.9 | 33.5 | 28.0 | 29.4 |
| 1987 | 42.1 | 27.9 | 26.9 | 26.4 | 29.1 | 31.7 | 30.2 | 32.7 | 27.5 | 28.8 |

half the median for renters. For example, in 1987, median housing cost for owners of single-family homes with no mortgages was $201, compared with $399 for renters and $629 for owners of single-family homes with mortgages (Figure 11).

Finally, examining renter and homeowner shelter poverty trends by *household size* (Tables 7 through 10) yields the following insights:

■ One- and two-person homeowners have, on average, experienced stable or slightly improving affordability situations; most are older, long-term owners who have had the benefit of relatively low and slowly growing housing costs plus incomes rising with inflation; the one subgroup with serious affordability problems is that of single elderly women, over a third of whom are shelter poor.

■ Homeowner households with three and four persons have experienced modest worsening of their affordability problems, as recent homebuyers have often taken on heavy cost burdens, but slightly older and longer-term owners for the most part have benefited from their generally rising property values and incomes.

***One subgroup with serious affordability problems is that of single elderly women, over a third of whom are shelter poor.***

■ Homeowner households of five persons or more have had substantial deterioration, on average, of their ability to afford their housing; there has been a significant decline in the number of such households, in some instances of course because children have grown up and left home, but in others due to family breakup or loss of the home; the remaining large homeowner households are more likely to be shelter poor than any other group except for renter households of three persons or more.

***Over the past decade, black and Hispanic renters of three persons or more have grown from a third of all large renter households who are shelter poor to one-half.***

■ Single renters have experienced a substantial increase in the number who are shelter poor yet a decline in the percent shelter poor, primarily because of striking differences between elderly and non-elderly singles. While we do not have elderly and non-elderly shelter poverty disaggregated for earlier years, the published data reveal that elderly singles, who are overwhelmingly female, have long been the poorest of all households and have faced rents increasing faster than incomes; by the mid 1980s nearly half of such households were shelter poor. Meanwhile there has been a rapid increase in the number of middle and higher income non-elderly singles; as of the mid-1980s the proportion of non-elderly shelter-poor singles was only one in five.

■ Shelter poor renter households with two persons have also grown substantially in number, but unlike one-person renters shelter poverty has increased in both number and percent, with virtually no difference in the trends for elderly and non-elderly.

■ *A majority of renter households of three persons or more are shelter poor and have had a greater increase in their incidence of shelter poverty than any other group.* While their incomes, on average, are higher than for smaller renter households, the cost of adequately meeting their non-shelter needs is also higher; yet they have the highest housing costs of any group except for homeowners with much higher incomes. In addition, while the scope of this paper has precluded examination of the racial dimensions of shelter poverty, a steadily increasing proportion of all renters households of three persons or more and an even greater share of those shelter poor are black and Hispanic; *over the past decade, black and Hispanic renters of three persons or more have grown from a third of all large renter households who are shelter poor to one-half.* Shelter poverty trends by tenure increasingly correspond to shelter poverty trends by race.

### The Mounting Housing Affordability Gap 1976-1987

The dollar gap between the amount shelter poor households are paying and the amount they can afford has not been computed for each year because of the complexity of the procedure, so a detailed analysis of year-by-year trends is not possible. (The method is summarized in Appendix B.) The computation has been carried out, however, for 1976, which was the first full year of economic recovery following the

mid-1970s recession. This then permits decade-to-decade comparison with the affordability gaps for the most recent years for which data are available, namely 1985 and 1987, also years of cyclical recovery.

The mean shelter poverty gap for *renters* rose from $116 a month in 1976 to $306 in 1987 (Table 11). In constant dollars this is an increase of 32 percent over the 11-year period. While it is not possible with just two data points to determine rigorously how much of the increase in the mean affordability gap is due to changes in real rents paid versus changes in real incomes among shelter poor renters, examination of these changes does yield some insights. Between 1976 and 1987 the mean real rent paid by shelter poor renters rose by 26 percent, while their mean real income declined by three percent.[9] It is thus plausible to conclude that the widening affordability gap for renters is traceable primarily to the housing market, a conclusion reinforced by evidence on the loss of unsubsidized low-rent units. (See Clay, 1987, and Joint Center for Housing Studies, 1988, on the loss of such units.)

***The mean shelter poverty gap for renters rose from $116 a month in 1976 to $306 in 1987. In constant dollars this is an increase of 32 percent.***

## TABLE 11

### Housing Affordability Summary
### U.S. 1976-87

| | Current Dollars | | | Constant 1987 Dollars | | |
|---|---|---|---|---|---|---|
| | 1976 | 1985 | 1987 | 1976 | 1985 | 1987 |
| Shelter Poverty: | | | | | | |
| Number of Shelter Poor HH (millions) | | | | | | |
| Renters | 10.26 | 13.69 | 13.86 | | | |
| Homeowners | 11.55 | 13.09 | 12.67 | | | |
| Total | 21.80 | 26.78 | 26.53 | | | |
| Mean Shelter Poverty Affordability Gap/HH ($ per month) | | | | | | |
| Renters | $116 | $274 | $306 | $231 | $289 | $306 |
| Homeowners | $108 | $259 | $265 | $216 | $273 | $265 |
| Aggregate Shelter Poverty Affordability Gap ($billions per year) | | | | | | |
| Renters | $14.2 | $45.0 | $50.8 | $28.4 | $47.6 | $50.8 |
| Homeowners | $15.0 | $40.8 | $41.1 | $29.9 | $43.0 | $41.1 |
| Total | $29.2 | $85.8 | $91.9 | $58.3 | $90.6 | $91.9 |
| Other Affordability Indicators: | | | | | | |
| Median Housing Cost ($ per month) | | | | | | |
| Renters | $167 | $364 | $399 | $333 | $384 | $399 |
| Homeowners | $191 | $362 | $391 | $381 | $382 | $391 |
| Median Household Income ($ per year) | | | | | | |
| Renters | $ 8,200 | $14,500 | $16,200 | $16,400 | $15,300 | $16,200 |
| Homeowners | $14,500 | $27,800 | $30,200 | $28,900 | $29,400 | $30,200 |
| CPI-U (1982-84=100) | | | | | | |
| All Items | 56.9 | 107.6 | 113.6 | | | |
| Housing | 53.8 | 107.7 | 114.2 | | | |
| Shelter | 51.5 | 109.8 | 121.3 | | | |
| Rent | 61.1 | 111.8 | 123.1 | | | |
| Fuel & Utilities | 49.4 | 106.5 | 103.0 | | | |
| National Income ($billions per year) | | | | | | |
| Gross National Product | $1,702 | $4,010 | $4,486 | $3,398 | $4,234 | $4,486 |
| Disposable Personal Income | $1,185 | $2,828 | $3,181 | $2,365 | $2,986 | $3,181 |
| Personal Consumption—Expenditures | $1,090 | $2,629 | $3,012 | $2,176 | $2,776 | $3,012 |
| Housing Consumption—Expenditures (excl. utilities) | $ 166 | $2,629 | $3,012 | $ 332 | $ 425 | $ 468 |
| Housing Consumption Expenditures mean per month per hh (excl. utilities) | $190 | $386 | $435 | $379 | $408 | $435 |

For shelter poor homeowners the average affordability gap increased from $108 a month in 1976 to $265 in 1987. This is a 23 percent increase if measured in inflation-adjusted dollars. Once again, this increase cannot be formally disaggregated, but some analysis is possible from the changes in the housing costs and incomes of shelter poor homeowners over the period. The mean real housing cost of shelter poor homeowners rose 45 percent from 1976 to 1987, while their mean real income rose 20 percent.

***For shelter poor homeowners the average affordability gap increased from $108 a month in 1976 to $265 in 1987. . .a 23 percent increase if measured in inflation-adjusted dollars.***

The increase in the housing affordability gap for both shelter poor renters and homeowners thus appears to be due primarily to their housing costs rising faster than the overall cost of living, rather than their incomes lagging behind general price increases. In the case of shelter poor homeowners, however, the situation is somewhat more complex because of the shift in the composition of shelter poor homeowners over the decade. In 1976 most shelter poor homeowners were older people with low incomes and relatively low housing costs: their median housing cost was $138 compared with $191 for all homeowners, and their mean cost was $161; their concentration at low incomes is reflected in their mean income of $10,560 actually being slightly less than their median of $10,920. By the mid 1980s the growth of shelter poverty among younger, middle-income homeowners with large mortgage burdens had created a bimodal distribution. Thus, while the median housing cost of shelter poor homeowners in 1987 was just $323 (compared with $391 for all homeowners), their mean cost was $465; and their mean income was $12,680 compared with a median income of $10,620. The mean affordability gap of one- and two-person shelter poor homeowners was $235 a month in 1987, while the gap for larger shelter poor homeowner households was $300 a month. The increase in the affordability gap for shelter poor homeowners is thus in no small measure a result of the addition of a high-cost/higher-income group of shelter poor homeowners rather than just a widening gap faced by older, low-cost/lower-income homeowners.

Trends in the aggregate shelter poverty affordability gap reflect the increase in the average gap per household as well as growth in the number of households shelter poor. Over the decade since 1976 the number of shelter poor renters rose by 35 percent, while the number of shelter poor homeowners rose just ten percent.[7] The result is that the aggregate affordability gap for renters grew by a factor of over three-and one-half, from $14 billion in 1976 to $51 billion in 1987. The aggregate homeowner gap increased by a little over two-and-one-half, from $15 billion to $41 billion. The combined affordability gap tripled from $29 billion in 1976 to $86 billion in 1985 and $92 billion in 1987 (Table 11).

Over this period there was, of course, both inflation and real growth in the economy, so that the direct burden of this affordability deficit has not risen as fast as the nominal increase. In constant 1987 dollars the aggregate shelter poverty affordability gap grew from $58 billion in

1976 to $92 billion by 1987 (Table 11), a 58 percent increase. From 1976 through 1985 real growth in the economy amounted to about 25 percent and through 1987 32 percent, i.e., the affordability gap has grown faster than the economy. In 1976 the total shelter poverty affordability gap was 1.72 percent of GNP; by 1985 it was 2.14 percent of GNP, and in 1987 2.05 percent, an increase over the whole period that is 22 percent greater than the growth in the overall economy. While the economic scale of shelter poverty is sizable and clearly has worsened, the level is still low enough—at two percent of GNP—for a solution to be entirely feasible, were there the political will.

***While the economic scale of shelter poverty is sizable and clearly has worsened, the level is still low enough—at two percent of GNP—for a solution to be entirely feasible, were there the political will.***

## Shelter Poverty And The Economy

This section places the housing crisis into its context within the larger economy. It discusses a dimension of the current affordability problem which has been alluded to but is not fully captured by the shelter poverty concept, namely, growing mortgage indebtedness and rising foreclosures. Finally, it draws broad policy conclusions.

### Housing and the Unravelling of Post-War Prosperity

While this nation has never adequately addressed the shelter poverty problem of the bottom third of our population, for a generation a framework existed to cope with the housing affordability situation of middle-income Americans. In the two decades following World War II over 30 million new housing units were produced, most of them single-family suburban homes, increasing the homeownership rate from 40 percent to over 60 percent. This construction boom was the response to the housing needs which had largely been unmet during the Depression and World War II. It was financed with tens of billions of dollars of savings accumulated during the War (for which there was virtually no competition from corporate and federal borrowing), and facilitated by FHA insurance and VA guarantees, as well as by the deductibility of mortgage interest and property tax expenses and deferral of capital gains taxes on owner-occupied homes. And it occurred in an environment of low inflation and U.S. international preeminence both economically and politically.

***This nation has never adequately addressed the shelter poverty problem of the bottom third of our population.***

During the 1960s this post-war stability began to crumble. In order to finance both the war in Southeast Asia and new domestic social programs without substantially raising taxes, the federal government turned to borrowing to cover growing budget deficits. Meanwhile, international economic competition together with low unemployment and rising wages squeezed corporate profits, leading to tremendous expansion of business borrowing in order to finance mergers, move-outs and reorganizations. Inflation took hold, competition for credit increased, interest rates rose, and the housing sector and thrift institutions suffered disproportionately.

Attempts to deal with these broader problems over the past two decades have contributed to the house price inflation, worsening income inequality, and financial instability that are at the heart of the housing affordability problem.[8] Since the late 1970s, households in the bottom third of the income distribution have received a smaller share of the economic pie and seen their incomes lag behind inflation; they have been able to afford less for housing just as housing costs were going up and government support for low-income housing was falling.

Rising housing costs in part have been driven by increasing demand for housing from ever-richer households at the top of the distribution. Meanwhile, those in the middle, who for a generation had benefited

from the public/private partnership which had created large amounts of suburban housing on cheap land at modest cost with low interest rates, have had their incomes barely keep up with inflation while confronting a very different housing environment.

**Shelter Poverty and the Speculative Housing Market**

Clearly the highly uneven economic expansion of the 1980s has not only failed to benefit a sizable portion of the people of this country, but has actually exacerbated their housing problems. But growing income inequality and stagnant real incomes over the recent two decades are not the whole story. Unstable housing markets in many metropolitan areas and a volatile national mortgage market are highly significant parts of the affordability equation as well. Most housing analysts have tended to focus on demographics and housing supply factors—the withdrawal of the federal government from subsidized housing, the high cost of land, the bulge in housing demand from the maturing baby boom generation, the changing role of cities, the increasing number of elderly, and high mortgage interest rates—to account for the growing affordability problem. Yet, while all of these elements are relevant, their manifestation has not been of sufficient magnitude and duration to account fully for the scope and persistence of shelter poverty.

***The shelter poverty measure . . . suggests that substantial problems existed before the baby boom generation matured and that such problems will not "naturally" be resolved as household formation diminishes.***

In contrast to the conventional measures of affordability, the shelter poverty measure has revealed a severe housing problem at least as far back as 1970, when already some 30 percent of the population were shelter poor. Factors which only began operating in the 1970s, while they may help to explain the worsening affordability situation since then, cannot account for the substantial problem that already existed two decades ago.

For instance, in a widely-cited paper, Mankiw and Weil (1988) have laid the responsibility for high housing prices at the feet of the baby boom. Their argument is that baby boomers began to form households in the 1970s, leading to a huge increase in housing demand and, therefore, in real housing prices. They argue further that since this trend is nearly spent, with the last of the baby boomers having formed households, help is on the way through natural forces, and thus, they contend, urgent policy measures directed at the housing problem are not warranted. The shelter poverty measure, however, suggests that substantial problems existed before the baby boom generation matured and that such problems will not "naturally" be resolved as household formation diminishes. Furthermore, the rate of household formation in the 1940s and 1950s was considerably higher than in the 1970s (2.9 percent versus 2.4 percent average annual compound rates), yet prices did not take off in that earlier period. Household formations fell in the 1960s (to 1.8 percent), yet prices began to soar in the late 1960s; and even though household formations in the 1980s have been lower (1.8 percent per year) than during the 1970s, it is the 1980s which have been the very period of runaway price increases. Nor do demographic fac-

tors in the 1970s explain the divergent affordability experiences of small and large households over this period, to which the shelter poverty concept directs our attention.

The long-term affordability problems created by private, speculative interests in housing and land were already apparent in the 1960s and 1970s. In older cities, waves of disinvestment, demolition and reinvestment had already caused massive displacement of lower-income residents. Most displaces ended up with higher housing costs in their new locations, in addition to enduring social, psychological and physical loss and pain. The well-publicized trends and consequences of urban housing costs in the 1980s thus did not appear suddenly and unexpectedly; nor are they the "natural" consequence of an "urban life cycle." They occur within particular kinds of housing and land markets, in which repeated buying, selling and refinancing have greatly exacerbated affordability problems and resulted in a highly unequal distribution of costs and benefits.

***The long-term affordability problems created by private, speculative interests in housing and land were already apparent in the 1960s and 1970s.***

Furthermore, even in the era of considerable federal support for subsidized housing 15 to 20 years ago, the new housing created never fully replaced what was lost to lower-income people, and rent subsidies have generally been insufficient to bring rents down to what shelter poor households realistically can afford. Much of the subsidized housing produced in that period provided windfalls to private developers in the form of tax-shelter benefits. Predictably, as the opportunities for private profit from operating such housing for low and moderate income people have run out in the late 1980s and into the 1990s, developers are selling and converting the housing to market rentals or condominiums where demand exists, or, in less desirable neighborhoods, simply defaulting on the mortgages and writing off their losses. As many as 2 million of these subsidized apartments are at risk of being lost as housing for low and moderate-income families (Clay, 1987: 7).

Furthermore, the idealization of individual homeownership in this society should not exempt it from scrutiny. The attractions of homeownership are undeniable: most of us desire the security of tenure and control over our living space that only homeownership has seemed to provide in this society, along with the possibility of relatively stable housing costs, some equity accumulation, income tax benefits, and a sense of community membership and social status that homeownership has promised. Yet conventional homeownership is not without problems. High acquisition costs and interest rates have made it difficult for all but the wealthiest to buy their first home. The risks of mortgage foreclosure and tax foreclosure undermine the security this tenure appears to offer. The popular homeowner tax benefits are highly regressive, flowing almost entirely to homeowners with incomes of over $50,000 (Low Income Housing Information Service, 1988). And, sadly, many homeowners may place the enhancement of property values above the enhancement of community, developing resentment toward

those regarded to be of lower status, and erecting legal and economic barriers such as restrictive zoning regulations that raise housing costs and preclude socially responsible development.

### Housing Affordability and Financial Instability

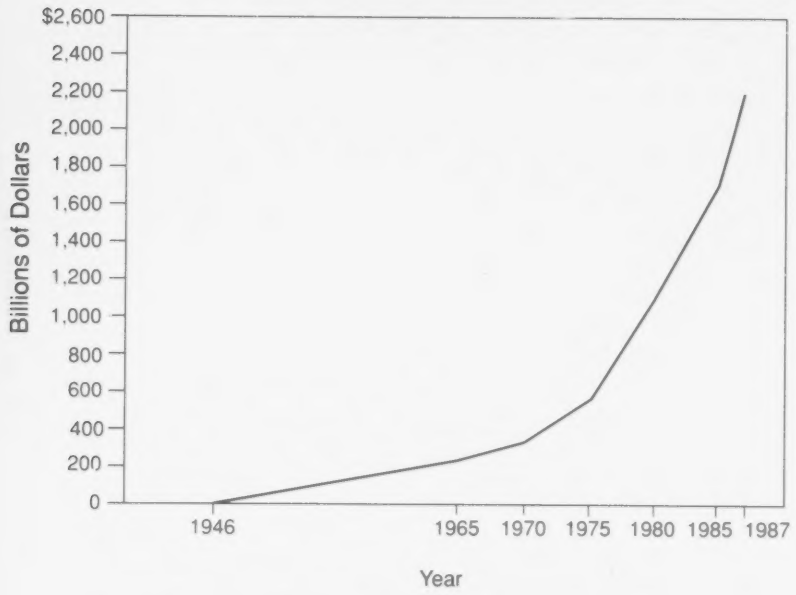
If shelter poverty is the housing affordability problem of the lowest third of the income distribution, mortgage overload is the affordability problem of middle-income households. Many young households may not be able to afford to buy homes, but many who have are now at risk of losing their homes. Central to this facet of the housing affordability problem is the transformation of the system of housing finance since the late 1960s.

***If shelter poverty is the housing affordability problem of the lowest third of the income distribution, mortgage overload is the affordability problem of middle-income households.***

Government sponsored expansion of secondary mortgage markets, plus the push for deregulation, enabled thrift institutions and the housing sector to compete somewhat more successfully in the capital markets. But they have also contributed to higher real interest rates for housing and throughout the economy, an explosion of debt far faster than the ability to repay it, and dangerous structural and behavioral weaknesses (so we are discovering) in the entire financial system. Only a few outside critics, though, saw the solutions as worse than the problems, accurately predicting that the results would include both collapsing institutions and increasingly volatile and costly housing credit, which in turn would worsen the housing problem and increase instability in the overall economy (see Meyerson, 1986, and Stone, 1986).

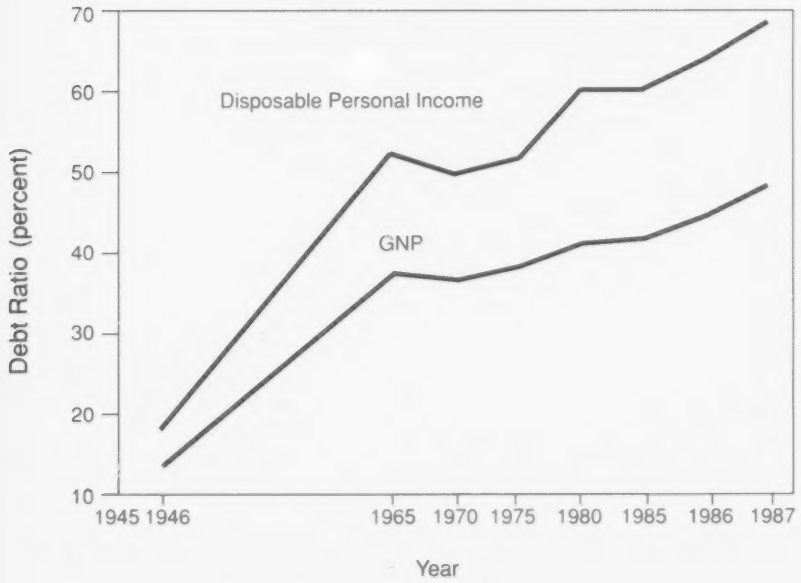
From the end of World War II through 1965, residential mortgage debt grew from a negligible amount to about $250 billion. By 1980 residential debt had grown to $1.1 trillion, and by 1987 had doubled again to $2.2 trillion (Figure 12). Measured in constant dollars, this debt has increased by close to 45 percent between 1980 and 1987, and has grown nearly 40 percent faster than GNP (Figure 13). And since most of the debt outstanding in 1980 was repaid through sale or refinancing during the 1980s, at least three-quarters of the $2.2 trillion has actually been borrowed since 1980 at double-digit interest rates.

**Figure 12**
**Mortgage Debt Outstanding**
**1946–87**




Source: Board of Governors of the Federal Reserve System

**Figure 13**
**Mortgage Debt Ratio as a Percent of GNP**
**and Disposable Personal Income**
**1946–87**



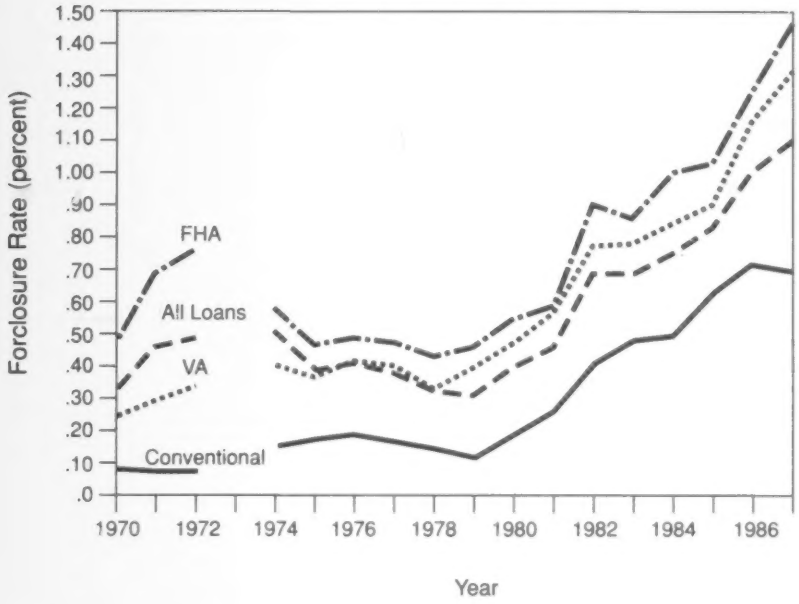

Sources: Board of Governors of the Federal Reserve System and
Bureau of Economic Analysis

In 1965 outstanding mortgage debt was equal to 54 percent of disposable personal income; by 1980 it had risen to 60 percent, and by the end of 1987 to nearly 69 percent of disposable personal income (Figure 13). Homeowners and tenants living in mortgaged housing are carrying a mortgage burden averaging $40,000 per household. Measured in inflation-adjusted dollars this is a 30 percent increase just since 1980 in households' mean mortgage debt. Apart from the older homeowners who have paid off their mortgages, each homeowners' mortgage and each tenants' share of the mortgages on their buildings is, on average, about one-and-one-half times their annual income. Mortgage payments typically account for about two-thirds of a household's housing costs. In mortgaged residential buildings, homeowners and tenants (through their rents) are laying out, on average, 20 percent of their after-tax income for mortgage payments.

***Since 1979 the rate of mortgage foreclosures has tripled.***

As people have found it harder and harder to keep up these mortgage payments, foreclosures have risen. *Since 1979 the rate of mortgage foreclosures has tripled*, to more than one percent of all mortgages. Foreclosures increased not only during the recession at the beginning of this decade but steadily ever since to post-Depression highs in 1986 and 1987 (Figure 14). A sharp rise in unemployment could result in a further upsurge in mortgage delinquencies and foreclosures, sending a shock wave through the row of financial dominoes created by deregulation and the enormous growth in the secondary mortgage markets. The current thrift crisis could be but the first tremor of a financial earthquake.

**Figure 14**
**Residential Mortgage Foreclosure Rates**
**1970–87**




Source: Mortgage Bankers Association, presented in U.S. League of Savings Institutions (1988, 33)

***A sharp rise in unemployment could result in a further upsurge in mortgage delinquencies and foreclosures.***

These dangers have been apparent for some time. Ten years ago, even before the excesses of the 1980s, Alan Greenspan (who was not yet Chairman of the Federal Reserve) noted about the housing market: "It's there, if anywhere, that speculative imbalances have surfaced which could threaten the stability of the American economy." He declared that the end of rising incomes and house prices "would catch many recent buyers with net losses and excessive debt burdens. Loan delinquencies and foreclosures undoubtedly would rise, creating financial difficulties for both lenders and borrowers. . . . The cumulative effect of such problems would be far deeper than any envisioned recession" (Greenspan, 1980: 37-40).

## Housing Affordability And Public Policy

The extent, the duration, and the pervasive social and economic implications of the housing affordability problem in the United States can only be ameliorated through new kinds of policies that begin to deal not with symptoms but with the underlying causes:

- Maldistribution of income;

- Overdependence on credit;

- Ownership arrangements which encourage speculation rather than production, employment and social well-being.

***An adequate policy response must deal directly with the growing problem of shelter poverty while also addressing the mortgage instability that is exacerbating the affordability situation of middle-income as well as poor households.***

An adequate policy response must deal directly with the growing problem of shelter poverty while also addressing the mortgage instability that is exacerbating the affordability situation of middle-income as well as poor households. The following are offered as necessary elements of such a response. (See also Institute for Policy Studies Working Group on Housing 1987 and 1989.) Such measures would recognize the deep roots of the affordability problem as revealed by the shelter poverty approach:

- Expansion of social, non-profit and non-speculative production and ownership of housing, to ensure both long-term affordability and responsible use of public resources; this would include support for ownership of an increasing share of new and existing housing by community organizations, local housing authorities, mutual housing associations, land trusts, limited-equity coops, and limited-equity individual owners; and it would increase housing development by community development corporations, labor unions and local housing authorities.

- Provision of direct public capital grants to finance an increasing share of production and acquisition of housing, as a way of reducing both the affordability burden of mortgage payments and the instability of the financial system; public resources would be provided for social and non-speculative housing in the same way that the federal government finances military projects, highways and other public works.

- Reform of the financial system, in order to deflate the credit bubble, reduce speculative uses of credit, and assure an adequate supply of low-cost credit for productive investment in housing, infrastructure, and job-producing industry.

- Assurance to all households of adequate and secure incomes, through gainful employment for all those able to participate in the paid labor force and through appropriate income supports for those who cannot obtain adequate income through employment; standards of adequacy should reflect realistically the cost of housing and non-shelter

necessities; and income supports should consist of a mix of appropriately targeted housing affordability assistance, based upon the shelter poverty standard, as well as supplemental aid to the very lowest-income households who would still be unable to meet their non-shelter needs at a minimum level even if their housing costs are fully subsidized.

■ Recognition in housing and income policies of the disproportionate growth of affordability problems among large rather than small households, as revealed by the shelter poverty measure; since the housing crisis is, indeed, one of the causes and manifestations of the crisis of American families (with "family" broadly understood to include both non-traditional and traditional living arrangements) it ought to be addressed as such; this requires appropriate housing schemes and designs, and supportive social and community services, as well as economic policies.

■ Enforcement of anti-discrimination laws fully and aggressively, along with affirmative programs within communities of color and the larger society to expand both housing as well income opportunities for those who have always been disproportionately shelter poor and who are bearing a disproportionate share of the increase in shelter poverty.

■ Reduction of the federal budget deficit through cuts in military spending plus restoration of a truly progressive income tax, including phasing out of the increasingly regressive deductions for mortgage interest and property taxes.

While it is true that the housing affordability problem will not be solved "simply by throwing money at it," it is also true that the housing problem cannot be solved without substantial public expenditures and reallocation of private resources. The resolution of this apparent contradiction lies in using these resources to support new types of policies—such as those sketched above—that target the underlying causes of shelter poverty in the United States.

***While . . . the housing affordability problem will not be solved "simply by throwing money at it," it is also true that the housing problem cannot be solved without substantial public expenditures and reallocation of private resources.***

# Appendix A

## The Shelter Poverty Affordability Standard

The conventional view of the housing affordability problem is based upon a certain notion of how much people reasonably can be expected to pay—namely, the famous 25 percent of income rule of thumb. Even this rule-of-thumb is subject to various adjustments and interpretations, depending upon one's point of view and one's political position. For a time, analysts and policymakers thought 20 percent was appropriate, and now 30 percent is becoming the arbitrary rule that is being applied.

The conception that there is a maximum amount which a household reasonably can be expected to pay for shelter is perfectly plausible, for it recognizes the special significance of housing costs. It says that because housing costs are large and inflexible and because they generally make the first claim on income, if a household pays too much for shelter, it won't have enough money left to pay for other necessities.

It is not hard to demonstrate, though, that any universal percentage of income does not make sense, whether it be 10, 20, 30, rather than 25 percent. However, this does not mean that it is impossible to arrive at a quantitative standard of affordability. Indeed, the distinctive nature of housing costs provides a logical basis for developing such a quantitative standard, and it is a sliding scale of affordability that varies with household income and composition (number, ages, and relationships of household members).

Imagine two households of comparable disposable (i.e., after-tax) incomes. Suppose that one is a single person, while the other is a couple with four children. What would be the difference in the cost of non-shelter necessities of life based upon some specified level of adequacy for these necessities? Obviously the large household would need substantially more for its non-shelter necessities than would the small household to achieve a comparable material quality of life. This implies that a larger household can afford to spend *less* for housing—if they are to meet their non-shelter needs at the given level of adequacy—than can the small household.

Similarly, if you were to take two households of the same size, but different after-tax incomes, then both would need to spend about the same amount to achieve the same standard of living in terms of their non-shelter items. The higher income households thus could afford to spend more on housing, as a percentage of income as well as in dollars.

That is, an appropriate standard of affordability for housing is a sliding scale, with household size and income as the principal variables or parameters which determine where on the scale a household lies.[9] Any attempt to reduce affordability of housing to a single percentage of income—no matter how low or high—simply does not correspond to

the reality of fundamental and obvious differences among households. Even attempts to establish a few prototypical groups and have a somewhat different percentage for each, or set up narrow ranges in order to recognize some differences, fail to grapple in a logically sound way with the range of variation in what households really can afford to pay.

Most households do not of course pay what they realistically can afford: many pay more while some pay less. In doing so, though, they are not simply choosing freely among limitless opportunities. Since after paying for their shelter many people simply cannot adequately meet their non-shelter needs, I have labelled such a state "shelter poverty," a situation which does not refer to the adequacy or inadequacy of housing, but rather to deprivation of non-shelter necessities resulting from the squeeze between incomes and housing costs.

How then can the sliding scale of affordability and the shelter poverty concept be operationalized? In order to do so, it is necessary to determine what constitutes a minimum level of adequacy for non-shelter items and what would be the cost of achieving this minimum level, recognizing that the cost will certainly be different for households of various sizes and types and will change over time as prices change; it will also vary geographically with climate and price differences, although geographical averaging is possible.

I have used components of the Bureau of Labor Statistics Lower Budgets for determining the cost of non-shelter necessities at a minimum level of adequacy. Difficulties with the BLS Budgets led to proposals for their replacement (Expert Committee on Family Budget Revisions, 1980), and federal budget cuts led BLS to discontinue the Program without revision or replacement after 1981. The shelter poverty approach was originally formulated in the early 1970s, but the debates and discontinuance of the BLS Budgets have forced a reexamination of the use of the Lower Budget non-shelter components. While the details of this reexamination cannot be presented here (see Stone, 1990, for fuller discussion), it turns out that use of just the non-shelter non-tax components of the Lower Budgets (updated using CPI components) aggregated into a *non-shelter standard of adequacy* avoids most of the difficulties with overall Budgets. Furthermore, as Table A1 shows, the updated *aggregate* BLS non-shelter figures correspond very closely to the aggregate non-shelter spending patterns for poverty level households as revealed by the most recent Consumer Expenditure Surveys (U.S. Department of Labor, 1988), despite significant differences in individual expenditure components. This analysis suggests that the non-shelter standard which has been adopted remains plausible and quite conservative.

**Table A-1**

**Comparison of Non-Shelter Expenditure Standards Based on BLS Lower Budget And Consumer Expenditure Survey Elderly and Non-Elderly, 1-6 persons 1985-86**

| Household Type | Non-Shelter (excl. taxes) BLS[1] | CESI[2] | CES2[3] | Poverty Level |
|---|---|---|---|---|
| 1-person Elderly | $ 3,528 | $ 4,989 | $ 4,075 | $ 5,156 |
| 2-person Elderly | 6,419 | 6,477 | 5,852 | 6,503 |
| 1-person Non-Elderly | 4,019 | 5,666 | 4,667 | 5,593 |
| 2-person Non-Elderly | 6,592 | 7,663 | 6,257 | 7,231 |
| 3-person Non-Elderly | 9,454 | 9,214 | 7,552 | 8,573 |
| 4-person Non-Elderly | 12,480 | 12,264 | 10,805 | 10,989 |
| 5-person Non-Elderly | 15,507 | 15,358 | 13,647 | 13,007 |
| 6+person Non-Elderly | 18,671 | 18,518 | 16,516 | 15,676[4] |

[1] Derived from updated BLS Lower Budget non-shelter non-tax items from 4-person and elderly-couple Budgets, scaled using BLS equivalency factors.

[2] Derived from Consumer Expenditure Survey 1985-86, mean expenditures of 4-person households with poverty class incomes ($10,000-$14,999), scaled using equivalency factors in Expert Committee on Family Budget Revisions, 1980, Table IV-2, p. 66.

[3] Derived from Consumer Expenditure Survey 1985-86, mean expenditures of elderly households aged 65-74 with sub-poverty class incomes (less than $5,000), scaled using equivalency factors in Expert Committee on Family Budget Revisions, 1980, Table IV-2, p. 66.

[4] Mean of 6-person and 7-person.

Utilizing the costs from the Lower Budgets (other than shelter costs and taxes), updated with components of the Consumer Price Index, scaled for various households of various sizes and types, and taking into account taxes as a function of income and household composition, it is possible to operationalize the sliding scale of affordability developed above. For non-elderly households all income is assumed to be from wages and salaries, thus subject to payroll taxes and incomes taxes; for elderly, income is assumed to be non-taxable Social Security benefits up to the maximum payable, plus taxable pensions and property income for those with greater incomes.

Figures A1 through A6 summarize the shelter poverty affordability scale for 1987, for elderly singles and couples, non-elderly married-couple families of two to six persons, and non-elderly single adults and single-parent families of two to six persons. They reveal that for each type and size of household there is an income threshold below which a household can afford *nothing* for housing (including utilities) if they are to meet their non-shelter needs at the level of adequacy represented by the BLS non-shelter costs. Above this threshold, a portion of each additional dollar of income goes for taxes and the balance constitutes the maximum amount affordable for housing at that level of income for that type of household. The maximum affordable amount rises steeply with income—in both dollars and as a percentage of income—revealing clearly that, just as there are income thresholds below which a house-

hold can afford nothing for housing, there are also thresholds above which a household can afford 25 percent, 30 percent or more of income without restricting their capacity to meet their non-shelter needs at a low but adequate level.

For example, on average a married-couple family of four with a gross income of under $23,000 could not have afforded as much as 25 percent (about $500 a month) for shelter, including utilities, in 1987; indeed, if their income were under $15,000 they could not have afforded anything for shelter and still met their non-shelter necessities at the minimum level specified by the BLS Lower Budget. Elderly couples, on the other hand, could have afforded 25 percent for shelter at an income of about $9,300 and a greater percentage at higher incomes (if they have full medical insurance). By contrast, an employed single parent needed an income of over $17,500 to have been able to afford 25 percent of income for housing (about $360 a month) in 1987, and below $10,800 could have afforded nothing.

Representing the shelter poverty scale of affordability in terms of percent of income thresholds provides a striking demonstration of the difference between the shelter poverty concept and the traditional standard. Unlike the conventional standard, these percentages follow from the computations of the maximum dollars affordable, rather than percentages being used to derive how much a household can afford in dollars. For assessing how much households can afford in relation to actual housing costs, it is of course necessary to use the dollar figures rather than percents of income.

For example, to be able to afford a one-bedroom apartment renting for $400 a month (including utilities), an elderly single person needs an income of at least $8,600, but a non-elderly single needs an income of over $11,100, primarily because of the much higher taxes paid by the non-elderly person. To be able to afford a two-bedroom apartment renting for $500 a month, a single parent with one child needs an income of at least $16,000, while a married couple with one child needs an income of about $19,400 or more, primarily because of higher non-shelter costs with the second adult. To be able to afford the $680 a month cost of the $67,000 median-priced home purchased by a young first-time homebuyer in 1987 (excluding equity buildup and tax benefits, as estimated by Joint Center for Housing Studies, 1988: 20), a married couple with two children would have needed an income of over $26,000; but if they have three children their income would have to have been over $30,000.

Bear in mind that these income thresholds are the level necessary to be able to pay for housing and just meet the BLS Lower Budget standard for non-shelter items. In order for such families to be able to achieve the more "middle class" standard for non-shelter consumption represented, for example, by the BLS Intermediate Budget, their incomes would need to be at least $5,000-$6,000 greater to be able to "afford" the same house.

The shelter poverty standard specifies the *maximum* amount a household can afford. This means that households who can afford *something* for shelter—i.e., who are above the threshold of being able to afford nothing—could, in principle, afford to devote to housing all of their disposable income above the zero threshold. From a policy perspective, though, it might not be reasonable to *require* subsidized households to spend all of the additional income on shelter, as this would eliminate all personal discretion and prevent their raising their non-shelter standard of living above the minimum level of adequacy. It might therefore be appropriate for housing assistance formulas to provide virtually 100 percent subsidies below the zero threshold, with less than dollar-for-dollar reductions in assistance for income above the threshold. On the other hand, since housing assistance is not now an entitlement, if assistance were reduced less than dollar-for-dollar with rising income, limited subsidy dollars could not serve as many households as they would with full offset, so that the horizontal inequity already present in housing assistance would be exacerbated.

Not surprisingly, application of the shelter poverty standard of affordability leads to rather different conclusions and implications than does the conventional approach along the following dimensions of housing analysis and policy (the first of which is examined in detail in the body of this report):

- determination of the extent and distribution of households paying more than they can afford;

- establishment of appropriate eligibility levels and assistance payments for households receiving housing subsidies;

- evaluation of the effectiveness, efficiency, and equity of policies and programs that enhance housing affordability directly or indirectly.

**Figure A-1**
**Maximum Affordable Shelter Cost for Elderly Singles and Couples**
**1987**

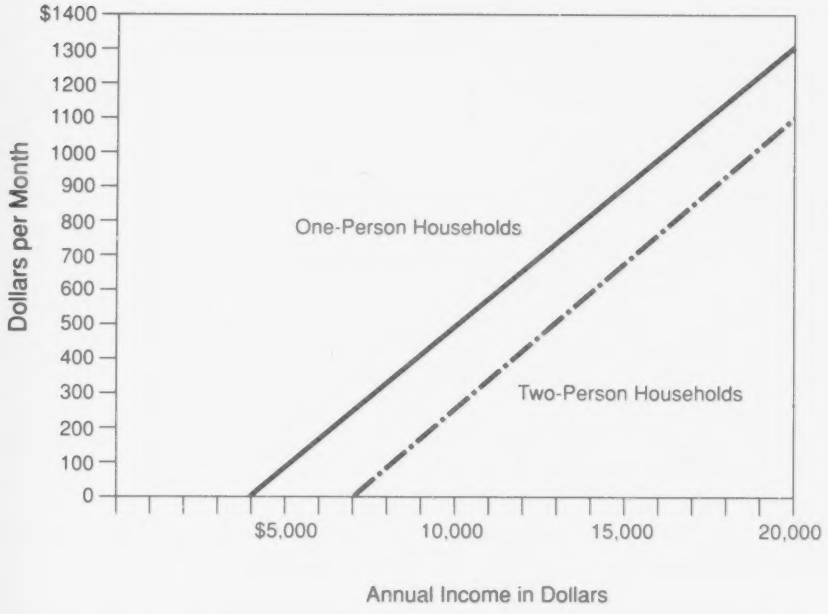



**Figure A-2**
**Maximum Affordable Shelter Cost for Elderly Singles and Couples**
**1987**

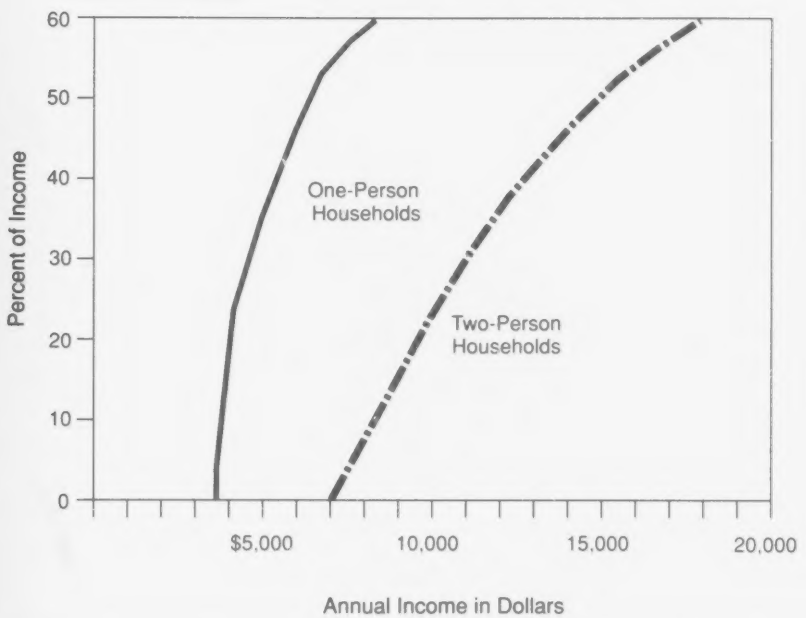


**Figure A-3**
**Maximum Affordable Shelter Cost for Non-Elderly Married Couples, 1987**

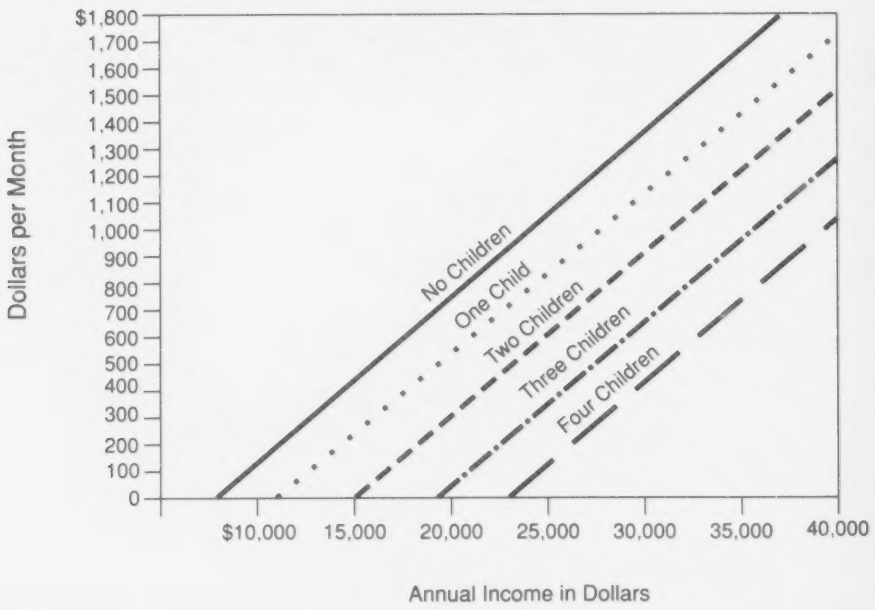



**Figure A-4**
**Maximum Affordable Shelter Cost for Non-Elderly Married Couples, 1987**

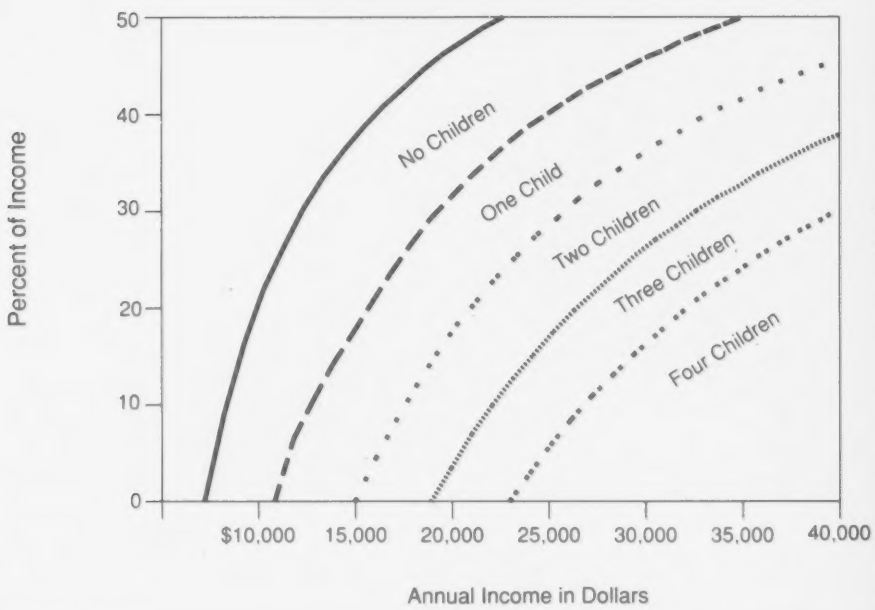


**Figure A-5**
**Maximum Affordable Shelter Cost for Non-Elderly Single Adults, 1987**

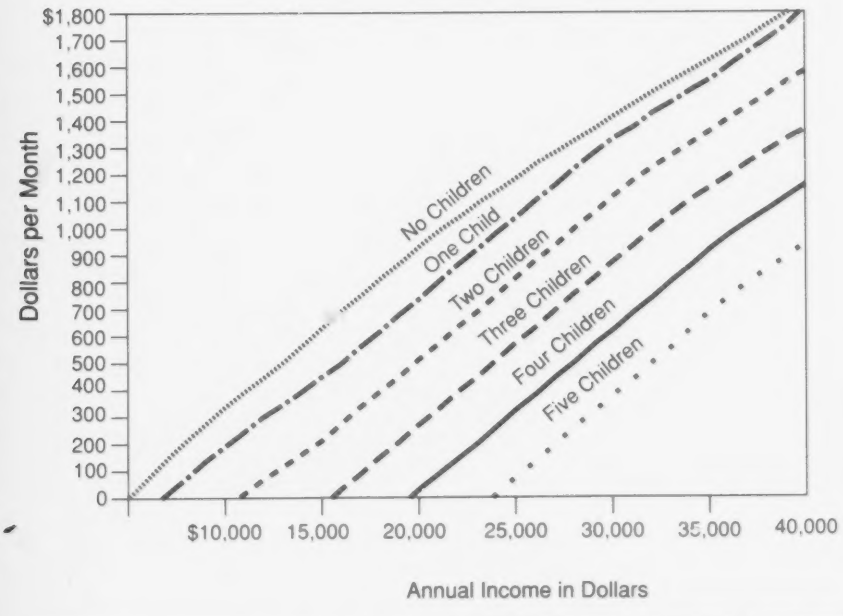
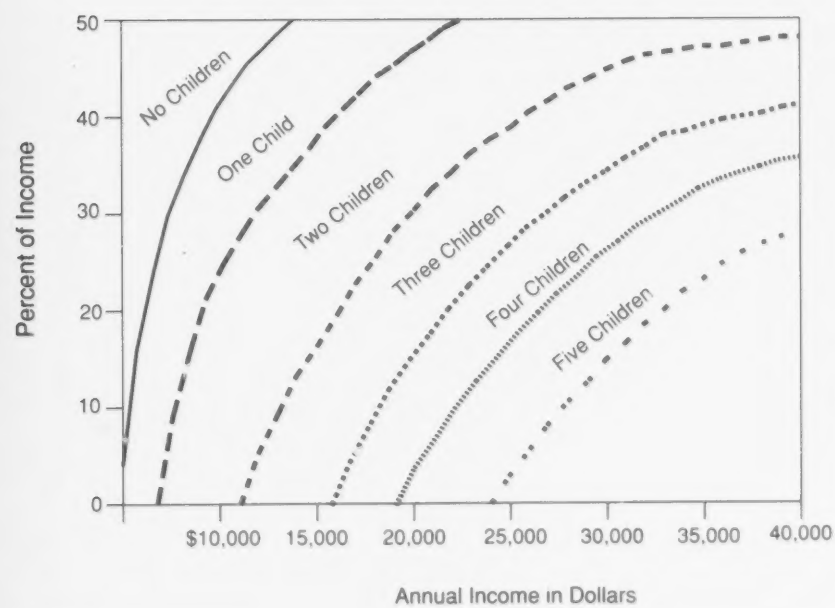



**Figure A-6**
**Maximum Affordable Shelter Cost for Non-Elderly Single Adults, 1987**



# Appendix B

## Determining the Extent and Distribution of Housing Affordability Problems: Methodological Comments

All of the results reported herein are from independent analysis of data from the 1970 Census and 1973-83 Annual Housing Surveys and 1985 and 1987 American Housing Surveys. Unless otherwise noted, all numbers in the text, tables and figures have been obtained or derived directly from these primary sources. Due to space constraints, it has not been possible to include tables and figures for all of the categories of the analysis, even though some results of the comprehensive analysis are summarized or alluded to in the text. Subsequent publications, including a book in progress, will present the results in greater detail; Stone (1990) presents detailed results on elderly affordability by tenure, household type and race for 1985.

While figures for households paying more than they can afford based on the conventional percent-of-income affordability concept are generally consistent with other recent studies (Joint Center for Housing Studies, 1988; and Center on Budget and Policy Priorities, and Low Income Housing Information Service, 1989), some differences may exist due to different assumptions and methods. For example, households reporting zero or negative incomes are not included in the previously published counts of households paying more than a specified percentage of income because of the impossibility of computing a finite ratio, but are included here among households exceeding the conventional affordability threshold.

Prior to 1985, the published reports from the Annual Housing Survey (as well as the decennial Census) presented not household income, but instead the income of families and primary individuals. For one-person households and for two-or-more-person family households with no non-relatives, there is no difference; but for two-or-more-person households containing unrelated persons the tabulated income is less than or equal to household income. The 1985 and 1987 American Housing Surveys do, for the first time, include some tabulations with both household income and income of families and primary individuals, but the most extensive crosstabs (which are necessary for making the shelter poverty computations) still include only the income of families and primary individuals.[10] These data limitations, along with maintenance of consistency in the time series, have necessitated continued use of family and primary individual income as the proxy for household income. To the extent that unrelated persons pool their resources and purchase non-shelter items for collective use in ways similar to families, the exclusion of some income would lead to some overstatement of the extent of shelter poverty. On the other hand, total personal taxes for households of unrelated persons are generally higher than for family households of the same income and household size, thus partially

offsetting the exclusion of some income. In addition, in many households with unrelated persons there is somewhat less pooling of income and shared purchases than among family households of comparable size; for purposes of shelter poverty computations, this again would mean that the exclusion of some income is at least partially offset by higher non-shelter consumption costs. This dilemma has confronted users of Census and AHS data for decades. The decision of the Census Bureau to begin tabulating household income may eventually make it possible to begin new, internally consistent time series based on properly defined household income, but such series will inevitably be discontinuous with older series based on family and primary individual income.

Housing costs reported in the Census and AHS are direct outlays. They do not include imputed rents, capital gains, or tax benefits. Not surprisingly, homeowner tax benefits have a negligible impact on the extent of shelter poverty, since shelter poverty is highly concentrated at lower incomes where homeowners rarely itemize or would benefit from itemizing deductions (because of low or no mortgage interest expenses). In this regard it should be noted that the value of the homeowner deductions is *not*, as is often assumed, equal to the owner's marginal tax rate times the sum of mortgage interest and property taxes; rather, it is equal to the marginal tax rate times the amount by which itemized deductions exceed the standard deduction, since the standard deduction is the *alternative* to itemized deductions, not an addition to itemized deductions.

Prior to 1985, the Annual Housing Survey presented income and household characteristics for all homeowners, but housing costs only for so-called "specified" owner-occupied units, which are single-unit structures on ten acres or less and no business on the property. This specification excluded about 20 percent of homeowners, primarily owners of single-family attached homes (semi-detached and row houses), owner-occupants of structures with two units or more, and condominium and co-op owners. The extent of housing affordability problems for all homeowners for years prior to 1985 has thus been determined by extrapolation from the data for "specified" homeowners. For both the shelter poverty and conventional standards, it has been assumed that all homeowners of a given income and household size have the same housing cost distribution as do "specified" homeowners of the same income and household size. The 1985 American Housing Survey, by contrast, presents housing cost data for all homeowner households, so that such extrapolation has not been necessary for 1985. Examination of the 1985 cost distributions for specified and not-specified owner-occupied units with mortgages shows higher prevailing costs for condos and co-ops than for specified owner-occupied units, but lower prevailing costs for other not-specified units; for units without a mortgage, specified units have costs considerably lower than condos and co-ops and slightly lower than other owner-occupied units.

The extrapolation for earlier years thus seems reasonable, but since condos and co-ops have been a rising proportion of not-specified owner-occupied units, it is conceivable that for earlier years specified homeowners had slightly higher housing costs, on average, than other homeowners of the same income. However, households in specified owner-occupied units are on average slightly larger than those in not-specified units, so household size effects could offset cost effects in determining the extent of shelter poverty among such owners. Due to these uncertainties, it is possible that a portion of the apparent moderation of the affordability problem among homeowners between 1983 and 1985 might not be real, but instead a consequence of slight upward bias in the results for 1983 and earlier. On the other hand, the decline from 1985 to 1987, based on the consistent series for these two years gives confidence that most of the 1983-85 decline is real.

Although homeowner housing costs were not available for 1970, the extent and distribution of shelter poverty among homeowners in that year has been estimated by assuming that in 1970 homeowners of a given income and household size had a housing cost distribution comparable to that of renters of the same income and household size. Testing this assumption with 1974 and 1975 American Housing Survey data, the earliest homeowner cost data, reveals errors of only one percent in the estimates of the total number of shelter poor homeowners for these two years (about one standard error and hence well within sampling error). This error analysis gives considerable confidence to the 1970 estimate of 10.4 million shelter poor homeowners. However, estimates by household size for 1974 and 1975 showed errors of under one percent for one-person households, but about three percent to ten percent for larger sizes; so it is not possible to have confidence in the specific 1970 estimates of shelter poor homeowners by household size.

Nearly all of the data have been obtained from published Census Bureau reports rather than data tapes. The detailed computations of the extent and distribution of housing affordability problems have required three-way cross-tabulations of the number of households by household size, housing cost and income (separately for renters and homeowners). The published reports, however, only provide two-way crosstabs for pairs of variables. Therefore, a modified iterative proportional fitting method has been used to generate a best estimate of the three-way crosstabs fully consistent with the marginal two-way crosstabs.

The dollar housing affordability gaps have been computed by determining the mean affordability deficit for each sub-category of income and household size (by tenure) in which there are households paying more than they can afford. The mean shelter poverty deficit, D, for each such sub-category has been defined as the mean income, I, minus the mean shelter cost, S, of shelter-poor households in the sub-category, minus the total non-shelter costs (consumption plus taxes), N, on the

shelter poverty scale for a household of that size and with income I; if N is greater than I, then the deficit is simply set equal to the mean housing cost, i.e., the affordability deficit does not include any income deficit a very poor household would have even at zero housing cost. The affordability deficits based on the conventional measures are computed on the basis of the difference between the mean housing cost for the sub-category and the mean affordable cost for households in that income class on the conventional measure.

Multiplying the mean gap for each category by the number of households in that category paying more than they can afford and summing these products over the variables yields total dollar affordability gaps at successive levels of aggregation. The average affordability gap per household for each higher level of aggregation is then simply the total affordability gap for that category divided by the number of households in that category who are paying more than they can afford.

While the rest of the procedure is quite simple and straightforward, determination of the average affordability gap for each sub-category is quite tedious because the sub-categories are diverse, thus making it impossible to devise a standardized algorithm for computing the average affordability gap for all sub-categories.

## Endnotes

1 Yet these 78 million people living in shelter poverty actually do have homes of some sort; they do not include the homeless, who are the victims of shelter poverty in the extreme.

2 The population base for determining the percentage of *people* shelter poor is the population in households, i.e., the population occupying housing units. By definition, this excludes the population living in group quarters (such as penal and custodial institutions, nursing homes, boarding houses, military barracks, college dormitories, fraternity and sorority houses, monasteries, convents, and ships), as well as the homeless.

Since American Housing Survey tabulations combine all households of seven persons or more into a single category, determination of the number of persons in households has required estimates of the average number of persons in households of seven or more. Current Population Survey data on the distribution of households by size and the total number of persons in households have been used for this purpose.

The numbers in this report do not include the homeless. The report does not offer any insights about homelessness in particular, except to suggest that there is a continuum of housing affordability problems, with no sharp line between the homeless and the extremely shelter poor; indeed, there is a steady flow of people between these states. For recent analyses of homelessness, including estimates of numbers, see Appelbaum (1990) and Burt and Cohen (1989) and the sources cited therein.

3 On the shelter poverty standard, some households can effectively "afford" negative amounts for housing, in the sense that even if their housing were free they would still not have sufficient resources to pay for their non-shelter necessities at the BLS Lower Budget level. Indeed, about half of all shelter poor households are in such a state of "absolute poverty." Since such negative amounts are due purely to income inadequacy, the housing affordability gap for such households is taken to be just the difference between their housing cost and zero (i.e., equal to their housing cost), rather than the difference between their housing cost and the negative amount they effectively can afford. The shelter poverty affordability gap is thus less than the total income deficit faced by such households, individually and in the aggregate.

4 Although homeowner housing costs were not available for 1970, the extent and distribution of shelter poverty among homeowners in that year has been estimated as explained in Appendix B.

The computations for years prior to 1985 were carried out prior to the general use of the 30-percent-of-income standard as a substitute for traditional 25-percent standard. The 1987 shelter poverty figures have thus been compared with both conventional standards, but all of the trend data have been limited to comparison with the traditional 25-percent measure.

[5] As with the rest of this report, the figures in this section are derived from the 1970 Census and 1975-87 Annual Housing Surveys and American Housing Surveys. Homeownership rates from Current Population data show the same patterns, but the exact figures do differ slightly.

[6] This discussion uses average (i.e., mean) incomes and housing costs rather than medians because the procedure for computing dollar affordability gaps at higher and lower levels of aggregation necessitates multiplying and dividing (respectively) dollar magnitudes by numbers of households in various categories. Medians are meaningless for such computations. See Appendix B for a summary of the procedures used to compute affordability gaps.

[7] Recall that the number of shelter poor homeowners actually declined from 1983 to 1987, while the number of shelter poor renters continued to increase. From 1976-83 the number of shelter poor homeowners rose by 23 percent compared with 29 percent increase among renters. The smaller rate of increase in the aggregate homeowner affordability gap is, in part, a reflection of the reversal of homeowner shelter poverty in recent years, not just a slower growth trend over the entire period.

[8] See, for example, Mishel and Simon (1988) and Harrison and Bluestone (1988) on increasing income inequality; and Stone (1986) on housing and economic instability.

[9] Elements of household composition, particularly ages and relationships, are also significant, though somewhat less so than household size. The fully-developed sliding scale, as presented here, has been derived for non-elderly married-couple households, non-elderly single-adult households, and elderly households.

[10] Of people occupying housing units (i.e., excluding occupants of group or institutional quarters and the homeless), the 1987 American Housing Survey reports median household income of $24,536 and median income of the families and primary individuals of $23,742, a difference of about three percent. The under $5,000 income class contains approximately seven percent fewer households than families and primary individuals. For the next three $5,000 income classes, the number of households is three to four percent less than the number of families and primary individuals. The transition occurs in the $20,000-$24,999 class,

with all higher income classes containing slightly more households than families and primary individuals.

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